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UNIVERSITY OF NORTH CAROLINA
EXTENSION BULLETIN

VOL. XXV JULY, 1945 NO. 1

CORRESPONDENCE INSTRUCTION

ANNOUNCEMENTS OF THE BUREAU OF CORRESPONDENCE INSTRUCTION 1945-1947

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CORRESPONDENCE INSTRUCTION

This catalogue explains in detail the correspondence work offered at Chapel Hill by the Extension Division of the University of North Carolina. The courses offered at the State College of Agriculture and Engineering in Raleigh are listed on pages 35-37. Full information regarding these may be secured by writing to that institution.

The courses listed herein may be pursued by any one who is prepared to study them with profit. Those who expect to secure credit towards a degree must, of course, satisfy the entrance and other requirements. However, those who do not desire or expect such credit are permitted to register for any course in which they have an interest. Non-credit students are given the same careful instruction as those who are candidates for a degree.

General Information

Correspondence study is simply a method of learning through the directed study of textbooks and supplementary material, writing the answers to the questions, and developing lines of thought contained in each assignment. Each assignment includes: (a) full directions for study, including references to textbooks by chapter and page; (b) suggestions and helps of the instructor; (c) questions to develop an understanding of the work done. When a student has registered for a course three assignments are usually sent him. He does the work outlined in the first assignment and sends his paper to the Extension Division, and then begins work on the second assignment. At the University each paper is gone over by the instructor, who carefully corrects and grades it and places on it constructive criticism and helpful suggestions for future study. Upon receipt of completed assignments, additional ones will be sent the student. While it is very desirable that the student send in work regularly, at least one assignment each week, he has the privilege of sending it in as he is able to complete it, *provided he does not submit more than four assignments a week in each course.*

Credit

Unless otherwise noted, all courses offered count toward the A.B. degree at this institution. Some courses are credited toward S.B. degrees. No courses offered count toward the master's degree.

To work out a systematic plan for taking correspondence instruction toward the A.B. degree, study carefully the *Requirements for Bachelors' Degrees* found on pages 15-16. Courses marked with an asterisk (*) are given by correspondence. The other courses listed in this catalogue are elective.

The State Department of Public Instruction at Raleigh will, in accordance with their regulations, credit all courses listed in this catalogue (except

those listed as non-credit courses) toward state teachers' certificates. See pages 9-10 regarding amount of credit allowed and distribution.

For credit toward a degree at this branch of the University, not more than the equivalent of one and one-half years of residence work, 45 semester hours or 67½ quarter hours, may be earned by extension. *Of this amount only 30 semester hours or 45 quarter hours may be taken by correspondence.* One-third of the total amount, 15 semester hours or 22½ quarter hours, is the maximum of correspondence work that may be completed in any twelve-month period. It is expected that the last year's work will be taken in residence. Special cases will be handled individually.

Entrance Requirements

If degree credit is desired at this branch of the University an applicant for correspondence work must meet the University entrance requirements of at least fifteen acceptable units from an accredited high school. The high school record must be transferred to the University on a blank that will be furnished for the purpose. An applicant for advanced standing may be ranked as a sophomore, junior, or senior when credit for work taken at other colleges has been properly transferred to the University and accepted by the examining committee.

If *certification credit only* is desired, correspondence courses may be taken by any teacher who holds a Standard State Certificate.

Nature of Courses

Each correspondence course has been developed by a member of the faculty so that it parallels a course given in residence in the same subject and covers an equal amount of work for which equal credit is given. Although it may vary, a correspondence course which gives two semester hours' or three quarter hours' credit has about sixteen assignments and one which gives three and one-third semester hours' or five quarter hours' credit has about twenty-seven assignments. Each assignment covers approximately two days of residence work. On such assignments a student is expected to put approximately six hours, or else sufficient time to do the work in the best possible manner.

Fees and Refunds

Each student pays, at the time of his enrollment, a registration fee of two dollars ($2.00) which shall entitle him to administrative and office service for one year. Unless otherwise stated, residents of North Carolina are charged a fee of nine dollars ($9.00) for a two semester hour or three quarter hour course and fifteen dollars ($15.00) for a three and one-third semester hour or five quarter hour course. For non-residents the fees are ten dollars and fifty cents ($10.50) for the former and seventeen dollars and fifty cents ($17.50) for the latter, payable at the time of enrollment.

Members of the armed forces are not charged the registration fee of $2.00 and in each case are charged only in-state course fees. For full information

about the United States Armed Forces Institute, see p. 17. (There is a separate bulletin of courses available through the Institute.)

No course fee or parts of such can be refunded after a course is once begun. In the event that no work has been done during the first three months and application is made within that time, a portion of the fee will be refunded, provided a good cause is given for discontinuing. A course fee holds good for one year and five weeks only. If it is desired to continue a course not completed within that time, a renewal fee of two dollars ($2.00) for a two semester hour or three quarter hour course and three dollars ($3.00) for each three and one-third semester hour or five quarter hour course will be required in order to extend the time for six months.

Books and Supplies

Textbooks are purchased by the students themselves, usually through the Extension Division. When a student has finished a course the Division will repurchase books that are in good condition if the student desires to sell them, provided the course has not been discontinued or revised and the Division is not sufficiently stocked.

Upon application, reference books for supplementary reading may be borrowed from the University Library Extension Service at a slight expense to the student for postage and packing. In some instances supplementary texts may be rented from the Bureau of Correspondence Instruction.

Light-weight paper suitable for typewriter or pen may be purchased from the Bureau. This is recommended in order to save postage.

Rules Governing Correspondence Work

1. Not more than two enrollments may be had at one time, and it is advisable to complete one course before registering for another.

2. Students may enroll for correspondence work at any time during the year.

3. Work taken by correspondence must be completed within one year and five weeks from the date of registration or a renewal fee will be required.

4. Those who wish credit must take a final examination on completion of all assignments in a course. This may be taken either at the University or in the student's community under conditions approved by the University. It should be taken no later than one month after the last assignment has been returned corrected. The examination must be passed if credit is to be allowed.

5. It is desirable that students send in at least one assignment a week. *Only four assignments per week are accepted in a course.*

6. A subject previously taken in any institution for which either degree or certification credit has already been given cannot be taken for credit by correspondence.

7. For credit toward a degree at this branch of the University, not more than the equivalent of one and one-half years of residence work, which is 45 semester hours or 67½ quarter hours, may be earned by extension. *Only*

30 semester hours or 45 quarter hours may be taken by correspondence. One-third of the total amount, 15 semester hours or 22½ quarter hours, is the maximum of correspondence work that may be completed in any twelve-month period. It is expected that the last year's work will be taken in residence. Special cases will be handled individually.

8. Correspondence work cannot be taken at the same time residence work is being taken without special permission from the student's dean.

9. Persons who are not *bona fide* residents of Chapel Hill must secure the approval of University authorities to remain in town and take correspondence courses.

10. When a student has completed a correspondence course all assignments must be returned to the Extension Division before a final grade or credit will be given.

11. It is expected that students will not take work from more than one institution at a time.

Standards

The Bureau emphasizes the importance of the individual guidance of students by instructors. This involves the evaluation of students' work and the giving of helpful suggestions according to individual needs.

All students will be expected to submit their assignments in good form, grammatical and otherwise, acceptable to the instructor and in line with the requirements of the University. If an instructor in any department finds that the English composition of a student is below the standard, the symbol *cc* (composition condition) may accompany the final grade, as for instance Bcc, Ccc, or Dcc. This will indicate that, although the instructor has accepted as satisfactory the student's knowledge of the subject matter of the course, the penmanship, punctuation, spelling, vocabulary, or organization of the written work is not up to the University standard. A student receiving such a grade may remove the condition by doing work in residence assigned by the English Department or by completing successfully either of the correspondence courses English c1 or English c51.

The Honor System

Correspondence courses, like residence courses, are on the honor basis. The student body of the University has through a century of traditions developed an honor spirit and an honor system. A student who plagiarizes, copies, cheats, or in any way does dishonest work is not only denied credit for the course but is also dismissed from the University by his fellow students. Work must be honest above all other qualities. Each correspondence student is on his honor to do only honest work.

To make certain that there is no semblance of dishonor it should be an unfailing habit *never* to use the textbook or any other materials or aids when writing answers to questions.

No credit will be given for a course in case the student has been false to the pledge of honor. No refund will be made in such case.

Transferring Credit

A record of the extension work completed towards a degree will be transferred to another institution when this request is made by the student.

The University cannot determine the policy of other institutions in regard to accepting towards their degrees credit for work completed in extension elsewhere. There are very few standards colleges or universities at this time, however, that do not accept credit for work completed through extension instruction in other standard colleges or universities. There is usually an interchange of credits between the various institutions which are members of the National University Extension Association.

The Extension Division will transfer credit to the State Department of Public Instruction to be applied toward teachers' certificates on the dates nearest the completion of the work. The State Department has requested the Division to transfer credit for this purpose at only two stated times during the year—June 1st and September 1st. Unless the work is completed before September 1st, credit will not be allowed by the State Department as of the June preceding but will be carried forward to the June next succeeding.

Special Notices to Teachers

Teachers who need *professional courses* must be sure to choose them in their own professional field. For instance, a primary teacher should not take a course in high school methods.

For renewing a certificate, six semester hours' work is required and may be taken by correspondence and/or extension class. Any courses which do not duplicate courses previously taken and are not methods courses outside the field of the certificate will be suitable.

The following regulations have been adopted by the State Department of Public Instruction:

1. No teacher in service shall be given credit for more than twenty semester hours during any one year between September 1st of that year and August 31st of the following year, a teacher in service being defined as one who teaches six or more months during the period. This, it must be understood, is the maximum total credit from all sources.

2. No teacher in service shall be given credit for more than twelve semester hours of extension class teaching or correspondence study instruction in any year between September 1st of that year and August 31st of the following year, with not more than eight semester hours permitted between September 1st and June 1st following.

3. Not more than forty per cent of the credit necessary to raise a certificate from one class to another may be earned through extension class teaching and/or correspondence study instruction.

4. The original professional credit necessary for an administrative or supervisory certificate may not be secured through extension class teaching and/or correspondence study instruction. The requirements for Graduate Secondary and Elementary Certificates, issued on the basis of a master's degree, may not be met by correspondence study.

5. Not more than sixteen semester hours' extension credit may be earned with the same instructor.

The requirements for A Certificates, as outlined by the State Department of Public Instruction, are as follows:

High School Teachers' A Certificates

The minimum scholastic training represents graduation from a standard four-year college. It is desirable that one be qualified to teach two or more subjects.

I. The professional requirements common to all certificates are:
   1. Educational Psychology ..... 2 S. H.
   2. Principles of High School Teaching
      or
      Problems in Secondary Education ..... 2 S. H.
   3. Materials and Methods in One Subject Field ..... 2 S. H.
   4. Observation and Directed Teaching ..... 3 S. H.
   5. Electives ..... 9 S. H.

II. The academic requirement varies with the subject for which certification is granted. The minimum subject-matter credit for the teaching of any subject shall be:

For English ..... 24 S.H.
This shall include:
- a. Grammar, Composition and Rhetoric
- b. American Literature
- c. English Literature

For Latin ..... 24 S.H.
Based on two units of high school Latin, to be reduced six semester hours for each additional unit of entrance credit.

For Library Science

A. Librarian (Whole-time) 24 S.H.
This shall include:
- a. Administration
- b. Cataloging and Classification
- c. Reference
- d. Children's and Adolescent Literature

B. Teacher-Librarian (Part-time) ..... 12 S.H.
This shall include:
- a. Administration
- b. Reference
- c. Children's and Adolescent Literature

For Mathematics ..... 15 S.H.
For Industrial Arts ..... 30 S.H.
For Bible ..... 15 S.H.
For Fine Arts ..... 30 S.H.
For Home Economics ..... 51 S.H.
- a. Chemistry ..... 6 S.H.

For French ..... 18 S.H.
Based on two or more units of high school French, otherwise 24 S.H.
(The quantitative requirements for teaching any other modern foreign language shall be the same as for French.)

For Social Studies ..... 30 S.H.
- a. American History ..... 6 S.H.
- b. European History ..... 6 S.H.
- c. From Government, Geography, Economics or Sociology 9 S.H.
- d. Electives (from a, b, c) 9 S.H.

(Individual certification will be granted in any of the specific areas: history, government, geography, economics and sociology, in which 12 semester hours' credit is presented. Certification for Citizenship or Civics or Problems in American Democracy would require credit for at least 18 semester hours from government, economics and sociology.)

For Science ..... 30 S.H.
This shall include:
- a. Biology ..... 6 S.H.
- b. Chemistry ..... 6 S.H.
- c. Physics ..... 6 S.H.
- d. Geography or Geology 3 S.H.
- e. Electives from a, b, c, or d ..... 9 S.H.

(Individual certification will be

b. Biology ..... 6 S.H.
c. Physics ..... 2 S.H.
d. Art ..... 3 S.H.
e. Foods ..... 8 S.H.
f. Clothing ..... 8 S.H.
g. Management ..... 6 S.H.
Home Management Residence required (6 weeks recommended as a minimum). Other courses may include buying, furnishing, and housing.
h. Family ..... 6 S.H.
Child Development (required). Family Relationships (required). Other courses may include Health, Nursing and Hygiene.
i. Social Science ..... 6 S.H.

For Commerce ..... 30 S.H.
This shall include:
a. Stenography
b. Typewriting
c. Bookkeeping
d. Office Management

(Individual certification will be granted in any one of the specific areas, a, b, and c, in which 9 semester hours' credit is presented.)

For Agriculture
B.S. Degree in Agricultural Education, including professional credits outlined for the teachers of other high school subjects.

For Public School Music ..... 30 S.H.
3 semester hours in courses requiring singing may be substituted for credit in Voice. Since the Public School Music Certificate may be and is used in the elementary school, it is strongly recommended that the professional courses include child psychology, techniques and methods in the elementary school, etc.

granted in any of the specific areas a, b, c, or d, in which 12 semester hours' credit is presented. Certification for the subject of *General Science* will require credit for 18 semester hours from three of the four areas a, b, c and d.)

For Physical Education ..... 30 S.H.
(Full-time teacher of Health and Physical Education in the Junior and Senior High School)
This shall include:*
a. Human anatomy and physiology ..... 6 S.H.
b. Principles, Organization, Administration, Supervision of Physical Education and Health Education 3-4 S.H.
c. Physical Education skills and applied techniques** (games, rhythms, gymnastics and aquatics) ..... 12 S.H.
d. Individual corrective physical education ..... 2-3 S.H.
e. Health Education:
1. Methods and Materials in Health Education ..... 2-3 S.H.
2. Personal hygiene and public health ..... 3-4 S.H.

(Part-time teacher of Health and Physical Education and Coaches of Athletic Teams) ..... 15 S.H.
This shall include:
a. Principles, Organization, Administration, and Supervision of Physical Education & Health ..... 3-4 S.H.
b. Physical Education skills and applied techniques* (games, rhythms, gymnastics & aquatics) .....8-9 S.H.
c. Health Education, including the teaching of health and school health problems ..... 3-4 S.H.

Primary A and Grammar Grade A Certificates

These certificates require graduation from a standard four-year college. As a part of the work, or in addition to it, the applicant shall have:

For Primary A Certificate
1. English ..... 12 S.H.
a. Composition ..... 6 S.H.

For Grammar Grade A Certificate
1. English ..... 12 S.H.
a. Composition ..... 6 S.H.

* 6-8 semester hours of biological and physical sciences and 6-8 semester hours of social sciences are recommended as prerequisites.
** Required service courses in health and physical education are not acceptable for credit toward certification in these fields.

b. Children's Literature (Primary Grades) 2 S.H.
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2. American History & Citizenship ..... 6 S.H.
3. Geography, including Nature Study ..... 6 S.H.
4. Fine and Industrial Arts 9 S.H.
   This shall include:
   a. Drawing
   b. Industrial Arts
   c. Music
5. Physical & Health Education ..... 6 S.H.
   This shall include a minimum of:
   a. Principles of Health and Physical Education ... 2 S.H.
   b. Practices and Procedures in Physical Education for Elementary Schools 2 S.H.
   c. Practices and Procedures in Health for Elementary Schools ..... 2 S.H.
   (Two semester hours of Biological Science are recommended as a prerequisite.)
6. Education ..... 21 S.H.
   (Exclusive of General Psychology)
   This shall include:
   a. Primary Methods (Reading, Language, Numbers)
   b. Classroom Management
   c. Child Study
   d. Educational Psychology
   e. Observation & Directed Teaching
7. Electives ..... 60 S.H.

b. Children's Literature (Intermediate & Grammar Grade) 2 S.H.
c. Elective ..... 4 S.H.

2. American History & Citizenship ..... 6 S.H.
3. Geography ..... 6 S.H.
4. Fine and Industrial Arts 9 S.H.
   This shall include:
   a. Drawing
   b. Industrial Arts
   c. Music
5. Physical & Health Education ..... 6 S.H.
   This shall include a minimum of:
   a. Principles of Health and Physical Education ..... 2 S.H.
   b. Practices and Procedures in Physical Education for Elementary Schools 2 S.H.
   c. Practices and Procedures in Health for Elementary Schools ..... 2 S.H.
   (Two semester hours of Biological Science are recommended as a prerequisite.)
6. Education ..... 21 S.H.
   (Exclusive of General Psychology)
   This shall include:
   a. Grammar Grade Methods (Reading, Language, Arithmetic, Social Science)
   b. Classroom Management
   c. Child Study
   d. Educational Psychology
   e. Educational Measurements
   f. Observation & Directed Teaching
7. Electives ..... 60 S.H.

In the Observation and Directed Teaching one shall have had not fewer than 30 semester hours of actual class teaching or not fewer than 30 full class exercises.

Before any certificate will be issued for teaching in the elementary schools, the records from the institution in which the applicant received training must show a satisfactory stage of proficiency in Penmanship and Spelling.

Validity and Renewal. A Class A Certificate may be renewed for five years by presenting credit for 6 semester hours of work. A Class A Certificate issued in 1930 or prior thereto may be made a Life Certificate by presenting credit for five years' teaching experience on the Class A Certificate and credit for 6 semester hours' work specializing in Methods and Supervision. Primary, grammar grade and high school teachers should take methods courses in their respective fields.

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* Required service courses in health and physical education are not acceptable for credit toward certification in these fields.

Requirements for the Bachelor's Degrees

The matter below, taken from the University catalog, is inserted so that correspondence students may select their courses in line with the requirements for the degree of Bachelor of Arts, should they desire to do so. The course leading to this degree is designed to provide a general, well-rounded, liberal education. The amount of correspondence work accepted for degree credit is explained on pp. 9-10. Students who plan to take Music as their major subject should consult the University's General Catalog for information concerning their programs for the freshman and sophomore years. Those interested in other bachelors' degrees should likewise be guided by the University Catalog.

In order to be recommended for the degree a student must pass satisfactorily and in accordance with the qualitative standard in force the work prescribed for the lower division and at least ninety (90) quarter hours in the upper division, including the prescribed subjects listed below and elective subjects in accordance with the requirements stated. At least three quarters within twelve months must be spent in residence before a degree will be granted.

In his first two years the student pursues a more or less definite curriculum, according to the following plan:

(For the A.B. degree)

Freshman Year

Required:
- *English 1-2-3
- *Social Science 1-2-3
- Physical Education 1-2-3
- Hygiene 1-2-3

Choose one:
- *Mathematics 1-2-3 or *7-8
- Greek 11-12-13
- **Latin 11-12-13 or 21-22-23

Choose one:
- Natural Science 1-2-3
- Chemistry 1-2-3
- Physics 1-2-3
- †Geology 21-22-23

Choose one:
- French 11-12-13
- *German 11-12-13
- Greek 11-12-13
- **Latin 11-12-13 or 21-22-23
- Spanish 11-12-13

* Given by correspondence.
** Latin c 11 only offered.
† Geology c 41-42 will meet this requirement.

Sophomore Year

Required:
- *English 22-23-24
- Foreign Language, 21-22-23 (Continuing the one chosen in the first year.)

Choose one:
- *Economics 31-32
- Education 41-42
- Political Science 31-32-33
- *History 21-22-23 or *71-72
- ‡History 41-42
- *History 44-45-46
- Philosophy 21-22-23
- §Sociology 21-22-23

Choose one:
- Botany 41 and Zoology 41
- Botany 41 and 43
- Chemistry 1-2-3 or 4-5, or 31 and 41 (or 42)
- Geology 21-22-23 or *41-42
- Physics 21-22-23 or 24-25
- **Psychology 21-22-23 or 24-25
- Mathematics 21-22-23
- Zoology 41 and 42

In addition choose one free elective—3 hours a week for the year.

Junior and Senior Years

For the purpose of providing the proper concentration for the junior and senior years the subjects of the curriculum have been grouped under three Divisions: the Division of the Humanities, the Division of Natural Science and the Division of Social Science. The Division of Teacher Training, under the direction of the head of the University's Department of Education, has been organized for the purposes of administration, guidance. and program-making in the field of teacher training. At the end of a student's second year he must choose one of the Divisions for his major work during his last two years. Having made his choice his work will be directed by the Chairman of the Division chosen. In general he will be expected to take about one-third of his work in one Department, one-third in allied Departments in the same Division, and one-third elective in other Divisions. It is understood that if no program of a Division meets the needs of a student he may submit a program of his own, which he may follow if it meets with the approval of the Division chosen for his major work.

It is expected that the last year's work will be taken in residence. Special cases will be handled individually.

NOTE: Persons interested in fulfilling the requirements for a teacher's certificate should refer to pages 11-14, inclusive.

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* Given by correspondence.
** Credit only for lecture part of course.
‡ History 41 only offered.
§ Sociology c 51-52 will meet this requirement.

The United States Armed Forces Institute

The University of North Carolina is one of a group of colleges and universities selected by the United States Government to offer correspondence courses to those in service, the Government paying part of the expense. Military personnel of the U. S. Army, the U. S. Navy, U. S. Coast Guard and U. S. Marine Corps are eligible to enroll under the Institute plan, provided they take courses approved by the War Department. The following subjects are included in the University's approved courses: Commerce, Economics, Education, English, French, Geography, German, History, Mathematics, Philosophy, Political Science, Psychology, Rural Social Economics, Sociology and Spanish. A leaflet giving full information is available and will be sent upon request. The Government will pay half the costs of texts and tuition fees not to exceed $20.00 for any one course on the approved list. Members of the armed forces are not charged the usual registration fee of $2.00 (see p. 8) and in each case are charged only in-state course fees (see p. 8).

Those desiring to enroll under this plan should send to the Commandant of The Armed Forces Institute, Madison, Wisconsin (1) one of the application blanks in the back of this catalog with an Institute application blank on which is a statement of the organization commander's approval and (2) a money order, cashier's check or certified check made out to the Treasurer of this University for the student's share of the cost (one-half the combined fee for the tuition and texts). If the Armed Forces Institute application forms cannot be secured from a post, camp or station commander, they may be obtained from the Institute headquarters, Madison, Wisconsin.

Adult Education

Special arrangements will be made with instructors to meet the requirements of adult students who, for various reasons, desire to continue studying. Any mature person or group of persons, regardless of previous education, may register for any of the subjects listed in this bulletin, and the instructor will endeavor to adjust the course to the individual needs and interests. Courses in Philosophy, Psychology, Education, Economics, Rural Economics, and Sociology are especially recommended for home-makers, social workers, parents and teachers. Literary and civic club members will find courses in History, Economics, English, Political Science, foreign languages, Art and Music valuable. For those in business there are courses in Accounting, Business English, Business Law, Mathematics, etc.

How to Select and Register for Correspondence Work

Read carefully all the preceding pages. Then look through the list of courses and select one or two which you need or in which you are most interested. Next fill out the application blank in the back of this bulletin:

detach and mail it with a check or money order to the University Extension Division, Chapel Hill, N. C.

Before writing to the Division be sure to fill out *every line* of the application blank. If you are a school teacher, be certain to give exact information, where called for, concerning your teacher's certificate; i.e., *kind* (whether elementary, primary, grammar grade, or high school); *class* (whether A, B, or C); and *number*.

Textbooks will not be sent unless requested on the application blank.

COURSES OF INSTRUCTION

NOTE: Unless otherwise stated in the description of the courses, the "c" numbers are the same as in the University catalogue and also correspond to the "s" numbers in the summer school catalogue. For the complete understanding of a course, both the "a" and "b" parts should be taken. For degree credit both parts are required.

NOTE: The fees here listed apply to residents of North Carolina. Fees for non-residents are $10.50 for a half course and $17.50 for a whole course. *In addition* to the course fee, each student (resident and non-resident) must pay at the time of his enrollment one registration fee of $2.00 which shall entitle him to administrative and office service for one year. (See p. 8.) For special rates for members of the armed forces, see pp. 8, 17.

DEPARTMENT OF ART

*c41.
THE HISTORY AND APPRECIATION OF ANCIENT AND MEDIEVAL ART.
Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
16 assignments.

A survey of the architecture, sculpture, and painting from the beginnings of art through the Gothic period.

DEPARTMENT OF DRAMATIC ART

c50.
SHAKESPEARE.
(See description of this course listed under Department of English.)

c155a.
PLAYWRITING.
Mr. Fitz-Simons.
Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
16 assignments.

A practical course for the student playwright in the analysis of the one-act play, with a special study of the materials and technical devices for achieving dramatic effect, and some consideration of the sources from which subject matter may be drawn.

c162a-c162b.
MODERN DRAMA.
Mr. Fitz-Simons.
Credit 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
16 assignments each.

The main purpose of this course is to give the student a general acquaintance with the chief tendencies of the English and continental drama of the past forty or forty-five years.

DEPARTMENT OF ECONOMICS AND COMMERCE

Economics

**c21-c22-c23.
GENERAL ECONOMICS.
Professor Lear.
Sophomore Elective.
Credit 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
18 assignments each.

These courses are planned to give a general understanding of the organization of our economic life and the fundamental principles underlying it.

* Not offered 1945.

** Degree candidates who have not begun the study of General Economics should take Economics c 31.

c31-c32.
GENERAL ECONOMICS.
Professor Lear.
Sophomore Elective.
Credit, 3 1/3 semester hrs. or 5 quarter hrs. each.
Fee, $15.00 each.
27 assignments each.
These courses cover the same material as Economics c21-c22-c23. Persons who have taken Economics c21-c22-c23 should not take these.

c135.
ECONOMIC HISTORY.
Professor Heath.
Sophomore and Junior Elective.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.
This course concerns a study of the development of the modern economic system, especially in Europe and America.

*Commerce

c1a.
ACCOUNTING.
Professor Peacock and Assistant.
No credit.
Fee, $9.00.
15 assignments.
Study of the fundamental principles of double entry bookkeeping; books of original entry; the ledger; preparation of financial statements.

c1b.
ACCOUNTING.
Professor Peacock and Assistant.
No credit.
Fee, $9.00.
15 assignments.
Continuation of c1a; closing and adjusting the books; the work sheet; control accounts; the partnership.

c91-c92.
BUSINESS LAW.
Professor Hobbs.
Prerequisites, Economics 31-32 (or 21-22-23) if taken for credit.
Credit, 3 1/3 semester hrs. or 5 quarter hrs. each.
Fee, $15.00 each.
27 assignments each.
The aim of the course is to give the student an understanding of the main principles of law that govern in the daily conduct of business. The topics discussed are: contracts, agencies, negotiable instruments, sales, bailments, corporations, partnerships, and bankruptcy.

Allied Subjects

†c6.
BUSINESS ENGLISH.
(See description of this course listed under Department of English.)

c51.
BUSINESS ENGLISH.
(See description of this course listed under Department of English.)

cn1.
THE ORGANIZATION AND OPERATION OF THE PUBLIC EMPLOYMENT SERVICE. (Public Administration.)
(See description of this course listed under Department of Political Science.)

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* NOTE: Credit courses listed under the Department of Commerce count only toward the S.B. degree in Commerce.

† Persons working for the S.B. degree in Commerce should take English c51 instead of this course.

DEPARTMENT OF EDUCATION

c71a-c71b.
EDUCATIONAL PSYCHOLOGY.
Professor Jordan.

Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
15 assignments each.

The critical consideration of such topics as original nature of man, heredity versus environment, kinds of learning, and factors influencing learning, individual differences, mental hygiene, and mental measurement.

c81.
THE TEACHING OF HIGH SCHOOL ENGLISH.
Professor Hartsell.

Credit, 3 1/3 semester hrs, or 5 quarter hrs.
Fee, $15.00.
27 assignments.

This course is designed to help prospective teachers of English, as well as teachers in service, to work toward an adequate understanding of basic principles and to formulate a practical methodology consistent with such principles.

c94a-c94b.
CLASSROOM MANAGEMENT.
Professor McKee.

Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
16 assignments each

A course for teachers on the organization and direction of activities in the classroom. Class routine, lesson planning, conduct of the recitation, and extra-curricular activities will be included.

c97a-c97b.
CHILDREN'S LITERATURE.
Miss Holmes.

Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
16 assignments each

In general, the aim of the course is to acquaint the students with children's reading in order that they may understand the varying appeals that books make to children and thus learn to select books with consideration for the different age groups and differing backgrounds of children.

c99a.
PRINCIPLES OF SECONDARY EDUCATION.
Mr. Mulholland.

Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
16 assignments

This course emphasizes theory, objectives and types of organization of secondary education, the curriculum as related to aims of secondary education and modern American life and guidance in the secondary school.

c99b.
METHODS OF SECONDARY EDUCATION.
Mr. Mulholland

Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
16 assignments.

Modern methods of teaching and measuring results of teaching in secondary schools, extra-curricular activities, classroom management and procedures are stressed.

c101a-c101b.
BASIC PRINCIPLES AND TECHNIQUES IN EDUCATIONAL ADMINISTRATION.
Professor Rosenstengel

Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
15 assignments each.

The first half of this course will include the basic principles involved in school administration. Attention will be given to the organization, ad-

ministration, and financial support of public schools in federal, state, and local school districts; work of school boards, retirement and tenure, professional ethics; public relations; and relationships of the teacher in modern educational administration. The second half of the course will deal with practical techniques in educational administration.

c102a
THE PUBLIC SCHOOL PRINCIPALSHIP.
Professor McKee.
Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
16 assignments.
This course considers those problems of the public school principal that have to do with the organization and administration of a school, and with the supervision of the school plant and equipment.

c102b.
SUPERVISION IN THE PUBLIC SCHOOLS.
Professor McKee.
Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
17 assignments.
This course deals with the nature, organization and planning of supervision, the study and improvement of the teaching-learning situation, the specific techniques and devices of supervision, the measurement of pupil and teacher progress and the follow-up and further development of the human factors involved in the classroom and school situations.

c103a.
ELEMENTS OF STATISTICAL METHODS IN EDUCATION.
Professor Jordan.
Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
15 assignments.
This course provides the statistical training necessary for understanding the reports of modern educational investigations and for conducting simple research projects. It is designed to equip the student to meet the statistical requirements for a M.A. degree in Education at the University.

c130.
PRINCIPLES AND METHODS IN ADULT EDUCATION.
Professor McKee.
Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
16 assignments.
Consideration will be given in this course to (1) principles in organizing adult study groups; (2) how adults learn, (3) guidance and counselling of adults; (4) preparing curriculum materials for adult groups; and (5) teaching and learning methods and techniques in adult education.

c142a-c142b.
HISTORIC FOUNDATIONS OF MODERN EDUCATION.
Professor Knight or Assistant.
Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
16 assignments each.
This course traces the development of some of the more important educational problems of modern times as they have been affected by the social and political facts of history, by the contributions of the leading educational theorists, and by institutional practice.

c143a-c143b.
SOCIAL AND EDUCATIONAL HISTORY OF THE UNITED STATES.
Professor Knight or Assistant.
Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
16 assignments each.
The purpose of this course is to present the evolution of the educational practices and institutions of the United States. These will be traced through (a) the period of transplanting of European institutions;

(b) the period of modification of institutional life to meet new conditions; and (c) the period of development of an educational system of free schools in harmony with the political and social ideals and institutions of America.

NOTE: This course is accepted as the equivalent of History 170.

c152b. READING AND STUDY HABITS FOR THE ELEMENTARY GRADES.
Professor Tippett.
Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
16 assignments.

This course considers the place of reading and study in the school program, the way teachers may provide for the maximum development of each pupil through making available desirable reading material and the remedial measures needed to meet reading and study difficulties.

c155. THE TEACHING OF THE NATURAL SCIENCES IN THE ELEMENTARY GRADES.
Professor McKee.
Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
16 assignments.

The informational content of science is studied in relation to science instruction in the elementary school. Purposes, methods, and materials for such instruction are surveyed. Stress is laid on making the best use of common things at hand, in demonstrating and experimenting.

c160a. CURRICULUM CONSTRUCTION.
Professor Tippett.
Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
16 assignments.

The general principles and techniques of curriculum construction on both elementary and secondary school levels comprise the major part of the course. Special attention will be focused upon recent trends in curriculum revision and organization in modern schools.

c164. TESTS AND MEASUREMENTS IN EDUCATION.
Professor Morrison.
Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
17 assignments.

Methods of measuring and improving the results of instruction in the elementary or high school are given detailed consideration. Students will be made acquainted with the most important tests and scales and will be given some experience in interpreting the results both statistically and practically.

c171a-c171b. GROWTH AND DEVELOPMENT OF THE SCHOOL CHILD.
Mrs. Jordan.
Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
16 assignments each.

(a) Child development. A study of the growth and development of children up to the time of adolescence. Changes in emotions are emphasized as well as those of intellect. (b) Adolescence. A study of the changes in emotions, attitudes and interests which take place during the adolescent years.

ADDITIONAL COURSES

Education

*c3X. Credit, 2 semester hrs. or 3 quarter hrs. Fee, $9.00. *16 assignments.*

SCHOOL HYGIENE AND HEALTH EDUCATION.
Professor Beard and Assistant.

The elements of normal growth, physical diagnosis, and the essentials of personal health maintenance are studied. The individual child and his environment, posture, neuro-muscular coordination, physical defects, and several phases of personal and school hygiene are considered.

*c54Pa, c55Ga. Credit, 2 semester hrs. or 3 quarter hrs. each. Fee, $9.00 each. *16 assignments each.*

THE TEACHING OF ARITHMETIC IN THE ELEMENTARY GRADES.
Professor McKee or Assistant.

These courses deal with the organization and selection of subject matter in arithmetic together with modern methods of teaching this subject in the elementary school.

*c55Gb. Credit, 2 semester hrs. or 3 quarter hrs. Fee, $9.00. *16 assignments.*

LANGUAGE ARTS IN THE ELEMENTARY GRADES.
Professor McKee or Mrs. Olsen.

A study will be made of (a) various vocabulary studies, (b) how to encourage pupils to make use of words learned, and (c) how best to measure the results of teaching.

Social Science

*c1Xa. Credit, 2 semester hrs. or 3 quarter hrs. Fee, $9.00. *16 assignments.*

PROBLEMS OF CITIZENSHIP.
Professor McKee or Mrs. Olsen.

Emphasis is on the development of those capacities and attitudes desirable in trained and creative citizens. The interrelations of home, school, community, state and national government are studied.

DEPARTMENT OF ENGLISH

c1-c2-c3. Credit, 2 semester hrs. or 3 quarter hrs. each. Fee, $9.00 each. *16 assignments each.*

FRESHMAN ENGLISH.
Mrs. Sharpe.

English c1 consists of intensive reading of prose selections. The course has for its object the mastery of the sentence and the relation of sentence structure to paragraph structure. There are further readings and exercises in English c2 with attention centered upon the paragraph and its place in the longer essay. Word study and vocabulary building are integral parts of the course. English c3 is devoted to a study of the essay as a prose form; composition centers upon the writing of longer essays, letters, and expositions. Extensive reading is introduced and an approach to the problems of the study of literature is undertaken.

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* This course is no longer required for a degree at this University but it may be taken for credit on teachers' certificates or for degree credit elsewhere, with the approval of the authorities.

c6.
BUSINESS ENGLISH.
Mr. Blakely.

Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
17 assignments.

This course is similar to English c51.
Students should not take both courses.

c22-c23-c24.
ENGLISH LITERATURE.
Mr. Blakely, Eng. c22-c-23;
Professor Sharpe, Eng. c24.
Prerequisite, English 1-2-3.
Sophomore requirement.

Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
18 assignments, c22.
20 assignments, c23.
17 assignments, c24.

An introduction to English literature through the study of representative works of selected chief writers. The selections studied in English c22 are drawn from the beginnings of English literature through the eighteenth century. Those in English c23 are drawn from the beginnings of Romanticism through the nineteenth century. In English c24 short stories are studied.

c50.
SHAKESPEARE.
Professor Sharpe.
Sophomore, junior, and senior elective.

Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

A study of Shakespeare's plays. About twenty representative comedies, tragedies and histories will be studied.

c51.
BUSINESS ENGLISH
Mr. Blakely.
Prerequisite, English 1-2-3.
Sophomore, junior and senior elective.

Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

A course in the vocabulary, forms, and literature of the business profession with special attention to letters of application and inquiry; routine, collection, adjustment and sales letters, business reports, and technical articles. Specimen letters are studied and criticized and actual business problems solved through written work.

c53.
CREATIVE WRITING:
THE SHORT STORY.
Mr. Wilson and Professor Bailey.
Junior and senior elective.

Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

A composition course designed primarily to offer to students an opportunity for short story writing and to familiarize them with the form. The work of various European and American authors will be studied.
NOTE: Those who have not had a course equivalent to English c54a are advised to take that course first.

c54a.
INTRODUCTION TO THE SHORT STORY.
Professor Sharpe.

Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
17 assignments.

An analysis of numerous short story materials and techniques. Introductory to English c53.
NOTE: This course was formerly called English c9.

c54.
CREATIVE WRITING.
THE SHORT STORY (Advanced).
Prerequisite, English c53 or the equivalent.
Mr. Wilson and Professor Bailey.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00
27 assignments.
The major aim of this course is to discover and develop the creative writing abilities of students in the planning and preparing of short stories.

c81.
AMERICAN LITERATURE.
Professor Adams.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.
This course concerns a study of the Colonial and Revolutionary periods and of the early 19th century through Hawthorne and Poe.

c84.
ENGLISH LITERATURE, 1780-1830.
Professor Hudson.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.
A course in the literature of the English Romantic Period, the purpose of which is to acquaint the student with the best thought and feeling of the time. Especial attention is given to the greater poets, Coleridge, Wordsworth, Scott, Byron, Shelley, and Keats.

c91.
THE ENGLISH NOVEL.
Professor Sharpe.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00
27 assignments.
This is a course in the development of the English novel, particularly in the eighteenth and nineteenth centuries. Special attention is given to the works of Jane Austen, Scott, Dickens, Thackeray, Charlotte Brontë, and George Eliot.

c155a.
PLAYWRITING.
(See description of this course listed under Department of Dramatic Art.)

c162a-c162b.
MODERN DRAMA.
(See description of these courses listed under Department of Dramatic Art.)

DEPARTMENT OF GEOLOGY AND GEOGRAPHY

Geology

c41-c42.
INTRODUCTION TO GENERAL GEOLOGY.
Professor Prouty.
Sophomore, junior, and senior electives.
Credit, 4 semester hrs. or 6 quarter hrs. each.
Fee, $15.00 each.
Lab. fee, $1.00 each.
27 assignments each.
c41. Dynamical Geology. This course deals with the physical and dynamical geology of the earth.
c42. Historical Geology. A broad study of the geological history of the earth and its inhabitants, as revealed chiefly in earth records. A scientific and cultural course. Laboratory materials used in these courses will be furnished by the Extension Division.

Geography

c3c. (Natural Science 3c).
ELEMENTARY GEOGRAPHY.
Freshman requirement for those expecting to go into the School of Commerce.
Professor Emory or Professor Erickson.
Credit, 2 2/3 semester hrs. or 4 quarter hrs.
Fee*
20 assignments.
This course gives a brief survey of earth materials for an understanding of the location and occurrence of important natural resources and their influence on economic life.

c15a-c15b.
PRINCIPLES OF GEOGRAPHY.
Professor Emory or Professor Erickson.
Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
16 assignments each.
This is an introductory course in college geography in which the interrelationship of man and his geographic environment are studied.

c31.
INTRODUCTION TO GEOGRAPHY.
Professor Emory or Professor Erickson.
Credit, 2 2/3 semester hrs. or 4 quarter hrs.
Fee*
20 assignments.
This course, primarily for freshmen and sophomores, is a part of the basic course in Elementary Geography (Geography 31-32-33). It is a regional study of the principles underlying the climate, relief, native vegetation, soils, and distribution of minerals and metals of the world.

c51.
INDUSTRIAL AND COMMERCIAL GEOGRAPHY.
Professor Emory or Professor Erickson.
Junior and senior elective.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
26 assignments.
The course deals with man's interaction with his varying environment in the development of industries, and with the geographic conditions of different countries as giving rise to commerce.

DEPARTMENT OF GERMANIC LANGUAGES

c3-c4.
GERMAN: INTERMEDIATE COURSE.
Professor Coenen or Professor Friederich.
Freshman and sophomore elective.
Prerequisite, one full year of German.
Credit, 3 1/3 semester hrs. or 5 quarter hrs. each.
Fee, $15.00 each.
27 assignments each.
Translation, sight reading, composition and grammar.

c11-c12-c13.
GERMAN: INTERMEDIATE COURSE.
Professor Coenen or Professor Friederich.
Freshman and sophomore elective.
Prerequisite, one full year of German.
Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
18 assignments each.
Practically the same material is covered in these courses as in c3-c4. Students may not take both for credit.

* The fee for residents is $12.00 and that for non-residents $14.00, in addition to the registration fee. See page 8.

c21-c22.
GERMAN LITERATURE.
Professor Coenen or Professor Friederich.
Sophomore elective.
Prerequisite, German 1-2-3 or 11-12-13 or the equivalent.

Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
16 assignments each.

German c21 concerns German literature from the beginnings to Lessing and Schiller. German c22 is a study of Classicism and Romanticism. German 23, the third course in the series, is not offered by correspondence. It is a study of Realism and Contemporary literature.

DEPARTMENT OF HISTORY

c1-c2-c3.
SOCIAL SCIENCE.
Professor Godfrey.
Required of Freshmen.

Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
17 assignments each.

A general course dealing with the fundamental factors in modern civilization in Europe and the United States. An historical study of the institutions of western civilization, designed to promote an understanding of the social, political, and economic aspects of the modern world.

c21-c22-c23.
AMERICAN HISTORY.
Professor Green or Professor Lefler.
Sophomore elective.

Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
19 assignments, c21.
18 assignments, c22.
17 assignments, c23.

A general survey of the history of the United States. The first course carries the story from Columbus's discovery of America to about 1843, the second from this point to 1897 and the third covers approximately the last four decades.

NOTE: These courses were formerly called History c47-c48-c49.

c41.
ANCIENT HISTORY.
Professor Caldwell.
Sophomore, Junior, and Senior elective.

Credit, 3⅓ semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

A course dealing with the history of the Orient, Greece, and Rome to the time of Constantine. Particular attention will be paid to social and economic conditions, and cultural and religious developments.

c44-c45-c46.
ENGLISH HISTORY.
Professor Russell.
Sophomore Elective.

Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
16 assignments each.

A survey of English history is made in these courses. History c44 concerning the period from early times to the Lancestrian Revolution, 1399; History c45 carrying the study on from then until the end of the Stuart Period, 1718; History c46 continuing until about 1935.

c71-c72.
AMERICAN HISTORY.
Professor Green or Professor Lefler.
Junior-senior elective.

Credit, 3 1/3 semester hrs. or 5 quarter hrs. each.
Fee, $15.00 each.
27 assignments each.

A general survey of the history of the United States. The first course begins with Columbus's discovery of America and goes to the end of the Civil War; the second begins at this point and ends in the mid-nineteen-thirties. Both c21-c22-c23 and c71-c72 may not be taken for credit.

c161.
NORTH CAROLINA, 1584-1815.
Professor Lefler.
Junior-senior elective.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.
A survey of the political, social, economic and cultural development of North Carolina from the first settlement until 1815.

c162.
NORTH CAROLINA, 1815-1936.
Professor Newsome.
Junior-senior elective.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.
A survey of political, economic, social and cultural development in North Carolina since 1815.

c170a-c170b.
SOCIAL AND EDUCATIONAL HISTORY OF THE UNITED STATES.
(See description of these courses listed under Department of Education.)
NOTE: Those who have taken Education c37a-b or c143a-b in previous years should not take these courses.

DEPARTMENT OF JOURNALISM

*c1.
WRITING PUBLICITY FOR CLUBS.
Professor Spearman.
Non-credit.
10 assignments.
This course is especially designed for club and other organization press chairmen who wish to secure newspaper publicity for their group activities.

DEPARTMENT OF LATIN

c1x.
INTERMEDIATE LATIN.
Mr. Simkins.
Prerequisites, two years of high school Latin, or one year of elementary college Latin.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
25 assignments.
This course is concerned with the translating of Cicero's *De Senectute*, with work in vocabulary, and with a review of the principles of grammar.

c8.
LATIN COMPOSITION.
Mr. Simkins.
Prerequisites, four years of high school Latin, or two years of college Latin.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
28 assignments.
The course will begin with translation into Latin of detached sentences illustrating the general principles of syntax and word order; the second half of the course will deal with continuous narrative and with questions of diction and style.

c11.
INTERMEDIATE LATIN.
Mr. Simkins.
Prerequisites, two years of high school Latin, or one year of elementary college Latin.
Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
16 assignments.
The course consists of a review of Latin grammar and a study of Cicero's *De Amicitia.*

* Not available 1945.

c26. LATIN POETRY.
Mr. Simkins.
Prerequisites, four years of high school Latin, or two years of college Latin.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

The course comprises the reading of the *Phormio* of Terence and selected odes of Horace. Emphasis is put on content and literary form.

DEPARTMENT OF MATHEMATICS

NOTE: Either Mathematics c1-c2-c3 or c7-c8 will meet the requirements of the freshman year.

c1. INTRODUCTORY MATHEMATICS.
Professor Garner.
Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
18 assignments.

This course treats the basic problems of college algebra. For a longer course in the subject, see Mathematics c7.

c2. INTRODUCTORY MATHEMATICS.
Professor Garner.
Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
18 assignments.

A study of functions and their graphs, the limit notion and graphical treatment of the fundamental notions of the differential and integral calculus.

c3. PLANE TRIGONOMETRY.
Professor Lasley.
Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
18 assignments.

The fundamentals of plane trigonometry are studied with less extensive application than in Mathematics c8.

c7. COLLEGE ALGEBRA.
Professor Garner.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

This course treats the fundamental operations of algebra and emphasizes the solution of linear and quadratic equations. For a shorter course, see Mathematics c1.

c8. PLANE TRIGONOMETRY.
Professor Lasley.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

This course concerns itself with the definitions of the trigonometric functions, their relations to each other, and the application of these functions and log tables to the solutions of plane triangles.

c13. SPHERICAL TRIGONOMETRY.
Professor Garner.
Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
18 assignments.

This course is designed especially for those who are interested in nautical and aerial navigation. It concerns a study of the mathematics relations existing among the sides and the angles of a triangle on the surface of a sphere.

DEPARTMENT OF MUSIC

c1.
ELEMENTARY THEORY OF MUSIC.
Miss Porter.

Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
16 assignments.

A study of the rudiments of music. Scales, intervals, and elementary harmonic material with practice in melody writing.

c14-c15-c16.
HARMONY.
Professor Schinhan.
Prerequisite, Music c4, or the equivalent.

Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
15 assignments, c14.
16 assignments, c15.
18 assignments, c16.

A first-year course in harmony. This covers the ordinary harmonic resources up to the chords of the seventh, their inversions, and elementary modulation.

c24-c25.
HISTORY OF MUSIC.
Miss Porter.

Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
16 assignments each.

These courses correspond to the first two courses in residence in the series Music 24-25-26. Music c24 covers the period from antiquity to the end of the sixteenth century. Music c25 concerns the seventeenth and eighteenth centuries. Phonographic recordings of the music of the periods are used.

DEPARTMENT OF PHILOSOPHY

c41.
INTRODUCTION TO PHILOSOPHY.
Professor Kattsoff.

Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

This course will attempt to introduce students to basic problems in the various fields of philosophy. Its purpose will be to broaden students' views with respect to problems of contemporary civilization.

c86.
ETHICS.
Professor Kattsoff.

Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

A study of morals and of the theory of good conduct: problems connected with the search for a final moral standard and with so-called "ethical relativity"; acquaintance with the major types of moral theory, viewed in the perspective of their contribution to issues which confront man in the modern world.

DEPARTMENT OF POLITICAL SCIENCE

c51.
THE GOVERNMENT OF THE UNITED STATES.
Professor Robson or Miss Mann.

Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

A general course dealing with the national government of the United States. Attention will be directed to the constitutional basis, the historical development, and the practical organization and operation of the institutions established for administering national affairs.

c81.
AMERICAN STATE GOVERNMENT.
Professor Robson or Miss Mann.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

A study in the principles, organization, and administrative methods of state government. In connection with the course will be a special study of the government of North Carolina.

cn1.
CITIZENSHIP.
Professor Wager.
Non-credit.
Fee, $4.50.
21 assignments.

This course in citizenship is offered in cooperation with the United States Immigration and Naturalization Service to persons in the state who wish to become citizens of the United States. It is designed especially for those who cannot attend citizenship classes.

Public Administration

cn1.
THE ORGANIZATION AND OPERATION OF THE PUBLIC EMPLOYMENT SERVICE.
Miss Mann.
Non-credit.
Fee, $9.00.
16 assignments.

This course is designed to assist persons engaged in public employment service and unemployment compensation work to increase their knowledge and to prepare persons for taking certain of the merit examinations given periodically by the Unemployment Compensation Commision.

DEPARTMENT OF PSYCHOLOGY

*c21x-c22x-c23x.
GENERAL PSYCHOLOGY.
Mr. Elliott.
Junior and senior elective.
Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
16 assignments each.

The aim of the course is to present the essential phenomena of psychology, and the various methods of approach. Emphasis is placed on the organic relationships within the whole field.

DEPARTMENT OF ROMANCE LANGUAGES

NOTE: Candidates for degree credit at the University are required to take their courses in this department in residence.

FRENCH

c3.
COMPOSITION AND READING—INTERMEDIATE.
Professor Engstrom.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

It is understood that those who register for this course have had either two years of high school French or one year of college French. The course consists of composition, grammar, and translation.

c4.
COMPOSITION AND READING—ADVANCED.
Professor Engstrom.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

Prerequisites, French 1, 2, and 3 in residence, or one year of college French.

This course consists of considerable reading of the masterpieces of modern French literature, with frequent compositions.

* Credit only for lecture part of course.

c21-c22.
FRENCH LITERATURE.
Professor Engstrom.
Prerequisites, French 3-4 or 11-12-13 or the equivalent.
Credit, 3 1/3 semester hrs. or 5 quarter hrs. each.
Fee, $15.00 each.
27 assignments each.

French c21 is an introduction to the study of French literature, giving a general survey of French literature from its beginnings through the 17th century. A number of plays of Corneille, Racine, and Molière, will be read. French c22 is a survey of French literature through the 18th and 19th centuries. Selected reading from the works of Voltaire, Rousseau, Beaumarchais, Chateaubriand, and Victor Hugo will be required.

Spanish

c3-c4.
SPANISH COMPOSITION.
Mr. Burks.
Prerequisites, either two years of high school or one year of college Spanish.
Credit, 3 1/3 semester hrs. or 5 quarter hrs. each.
Fee, $15.00 each.
27 assignments each.

The object of these courses is to provide the student with an opportunity to acquire practice in writing Spanish.

c21-c22.
SPANISH LITERATURE.
Mr. Burks.
Prerequisites, Spanish 3-4 or 11-12-13 or the equivalent.
Credit, 3 1/3 semester hrs. or 5 quarter hrs. each.
Fee, $15.00 each.
27 assignments, c21.
30 assignments, c22.

Spanish c21 is a general survey of Spanish literature during the 16th and 17th centuries. There is the reading of selections from Lope de Vega, Cervantes, Calderón, etc. Spanish c22 gives a general survey of Spanish literature since the classical period, with special stress on the 19th century.

DEPARTMENT OF SOCIOLOGY

c51.
INTRODUCTION TO SOCIOLOGY.
Professor Brooks.
Sophomore, junior, and senior elective.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

A study is made of contemporary society, the forces underlying it, its organization and trends.

c52a-c52b.
SOCIAL PROBLEMS.
Professor Meyer and Assistant.
Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
16 assignments each.

These courses concern a study of social problems such as leadership, race, population, family, immigration, crime and poverty.

c161a-c161b.
THE FAMILY.
Professor Klaiss.
Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
15 assignments each.

The first part deals with the historic significance of the family; its place and problems today under the influence of changing social and economic conditions; some criteria of family success; the family as a field for research. In c161b family relationships are examined in the light of psychological, sociological, legal, eugenic, educational, and economic influences with special emphasis on parent-child factors.

c173a-c173b.
PLAY AND RECREATION.
Professor Meyer.
Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
16 assignments each.

This course includes a history of the play movement and presents the theories of play with their application to community life.

c175.
EXTRA-CURRICULAR ACTIVITIES.
Professor Meyer.
Credit, 2 semester hrs. or 3 quarter hrs.
Fee, $9.00.
16 assignments.

In this course a study is made of the extra-curricular activities of pupils in the interest of arranging successful programs.

c181a-c181b.
REGIONAL SOCIOLOGY OF THE SOUTH.
Professor Brooks.
Credit, 2 semester hrs. or 3 quarter hrs. each.
Fee, $9.00 each.
15 assignments each.
Prerequisite, Sociology 51.

A study is made of the South in terms of natural resources, human resources, and culture, with emphasis upon regional planning.

c182.
THE COOPERATIVE MOVEMENT.
Professor Brooks.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

This course concerns a study of cooperation with emphasis upon cooperative organization in the modern western world.

c185.
THE NEGRO.
Miss Smith.
Junior and senior elective.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

This course includes a study of the American Negro's historical and cultural background, aspects of Negro life and the problems of race relations.

RURAL SOCIAL ECONOMICS

c51.
RURAL ECONOMICS.
Professor Hobbs.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
25 assignments.

The purpose of this course is to acquaint the student with agriculture as a business, and to introduce him to the field of agricultural economy.

c53.
HISTORY OF AGRICULTURE.
Professor Hobbs.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

This course is designed to acquaint the student with the stages of agricultural development from the earliest recorded times to the present.

c71.
RURAL SOCIOLOGY.
Professor Hobbs.
Credit, 3 1/3 semester hrs. or 5 quarter hrs.
Fee, $15.00.
27 assignments.

This course makes a study of the rural community, considering the advantages and disadvantages of farm life, rural health, sanitation and social institutions.

CORRESPONDENCE COURSES OFFERED BY COLLEGE EXTENSION DIVISION NORTH CAROLINA STATE COLLEGE, RALEIGH, N. C.

Agriculture

Course	*Credit*
A. H. 202, Animal Nutrition I	3 term hours
A. H. 361, Animal Nutrition II	3 term hours
A. H. 313, Sheep Production	3 term hours
Hort. 303, Vegetable Gardening	3 term hours
Hort. 313, Home Floriculture	3 term hours
Poul. 201, General Poultry	3 term hours
Poul. 333, Poultry Nutrition	3 term hours
Poul. 401, Poultry Diseases	3 term hours

Agricultural Economics—Rural Sociology

Agr. Econ. 303, Farm Management I	3 term hours
Rur. Soc. 302, Rural Sociology	3 term hours

Art

A. E. 205a, History of Architecture	2 term hours
A. E. 205b, History of Architecture	2 term hours
A. E. 205c, History of Architecture	2 term hours

Education

Ed. 303, Educational Psychology	3 term hours
Ed. 304, Educational Psychology	3 term hours
Ed. 471, Psychology of the Exceptional Pupil	3 term hours
Ed. 476, Psychology of Adolescence	3 term hours
Ed. 420, Philosophy of Guidance	3 term hours
Ed. 440, Vocational Education	3 term hours
Ed. 424, Occupational Studies	3 term hours
Ed. 452, Industrial Arts	3 term hours

Economics

Econ. 201, General Economics	3 term hours
Econ. 202, General Economics	3 term hours
Econ. 307, Business Law	3 term hours

English

Eng. 101, Composition	3 term hours
Eng. 102, Composition	3 term hours
Eng. 103, Composition	3 term hours
Eng. 211, Business English	3 term hours
Eng. 265, American Literature I	3 term hours
Eng. 266, American Literature II	3 term hours

Geology

Geol. 120a, Physical Geology	3 term hours
Geol. Ex. 207A, Physical Geography	3 term hours
Geol. Ex. 207B, Physical Geography	3 term hours

History

Course	*Credit*
Hist. Ex. 101, American Economic History to 1789	3 term hours
Hist. Ex. 102, American Economic History, 1789-1865	3 term hours
Hist. Ex. 103, American Economic History Since 1865	3 term hours
Hist. 200, The Colonial Period of American History	3 term hours
Hist. 201, History of the United States from the Revolution to the Civil War	3 term hours
Hist. 202, American National Development, 1860-1920	3 term hours
Hist. 204, Modern European History, 1500-1815	3 term hours
Hist. 205, Modern European History, 1815-1870	3 term hours
Hist. 206, Contemporary Europe	3 term hours
Hist. 207, Modern European History, 1815-1940	3 term hours
Hist. 303, History of North Carolina	3 term hours
Hist. 307, Economic and Social History of the South	3 term hours
Hist. 308, Economic and Social History of the South	3 term hours
Hist. 309, Economic and Social History of the South	3 term hours
Hist. 310, American Biography	3 term hours
Hist. 321, Hispanic American Republics	3 term hours

Political Science

Pol. Sc. 211, American Government	3 term hours
Pol. Sc. 212, State Government and Administration	3 term hours
Pol. Sc. 213, Municipal Government and Administration	3 term hours
Pol. Sc. 221, American Political Parties	3 term hours

Engineering

Cer. E. 202, Ceramic Materials	3 term hours
Cer. E. 302, Firing Fundamentals and Practice	3 term hours
Cer. E. 252b, Setting Heavy Clay Production	Non-credit
Cer. E. 302, Metal Enamels	3 term hours
Cer. E. 401, Pyrometry	1 term hour
M. E. 105, 106, 101, 102, 103, Engineering Drawing	6 term hours
M. E. 107, Descriptive Geometry	3 term hours
H. E. Ex. 101, Accidents and Their Prevention	3 term hours

Engineering Mechanics

E. M. 311, Engineering Mechanics	3 term hours
E. M. 312, Engineering Mechanics	3 term hours
E. M. 313, Engineering Mechanics	3 term hours
E. M. 321, Strength of Materials	3 term hours
E. M. 330, Fluid Mechanics	3 term hours

Mathematics

Math. 101, College Algebra	6 term hours
Math. 102, Plane and Spherical Trigonometry	6 term hours
Math. 103, Analytical Geometry	6 term hours
Math. 111, Algebra	4 term hours
Math. 201, Calculus I	4 term hours
Math. 202, Calculus II	4 term hours
Math. 303, Calculus III	4 term hours

Textiles

Course	*Credit*
Tex. 211, Knitting I	2 term hours
Tex. 316, Knitting II	3 term hours
Tex. 236, Fabric Structure and Analysis	2 term hours
Tex. 237, Fabric Structure and Analysis	2 term hours
Tex. 341, Fabric Design and Analysis I	3 term hours
Tex. 342, Fabric Design and Analysis II	3 term hours
Tex. 345, Textile Calculations I	3 term hours
Tex. 375, Dyeing I	6 term hours

Modern Languages

M. L. 101, Elementary French	3 term hours
M. L. 102, Elementary French	3 term hours
M. L. 201, Elementary French Prose	3 term hours
M. L. 105, Elementary Spanish	3 term hours
M. L. 106, Elementary Spanish	3 term hours
M. L. 205, Elementary Spanish Prose	3 term hours
M. L. 103, Elementary German	3 term hours
M. L. 104, Elementary German	3 term hours
M. L. 209a, Spanish Prose	3 term hours
M. L. 209b, Spanish Prose	3 term hours
M. L. 209c, Spanish Prose	3 term hours

Psychology

Psy. 200, Introduction to Psychology	3 term hours
Psy. 202, Psychology of Personality and Adjustment	3 term hours
Psy. 303, Educational Psychology	3 term hours
Psy. 304, Educational Psychology	3 term hours
Psy. 471, Psychology of the Exceptional Pupil	3 term hours
Psy. 476, Psychology of Adolescence	3 term hours

Sociology

Soc. 101, Human Relations	2 term hours
Soc. 102, Human Relations	2 term hours
Soc. 103, Human Relations	2 term hours
Soc. 202, General Sociology	3 term hours
Soc. 203, General Sociology	3 term hours
Soc. 400, Criminology	3 term hours
Soc. 401, Social Pathology	3 term hours
Soc. Ex. 402, Sociology of City Life	3 term hours
Soc. 406, The American Family	3 term hours

Zoology

Zool. Ex. 108, Heredity and Eugenics	3 term hours

For further information, write to the College Extension Division, North Carolina State College, Raleigh, North Carolina.

UNIVERSITY EXTENSION SERVICES

In addition to the correspondence courses listed in this catalogue, the University of North Carolina offers, through the Extension Division, the following services to the people of the state:

Art. The North Carolina School Art Exhibition is conducted annually in cooperation with the Woman's College of the University of North Carolina and the North Carolina Federation of Women's Clubs. Circulating art exhibits may be secured on a loan basis.

Audio-Visual Aids. Sound and silent educational films, lantern slides, recordings and other teaching aids are loaned to schools, colleges, and community organizations. A special catalogue of this service may be obtained upon request. The Bureau of Visual Instruction is a distributing agency for government war films.

Dramatic Art. Assistance is given in organization for dramatic activities, in play selection and production, and in the loan of playbooks and other library material. An annual tournament is conducted in cooperation with the Carolina Dramatic Association.

Extension Class Instruction. Late afternoon, evening, and Saturday classes are organized wherever enough enrollments to cover expenses are secured. Courses of both a vocational and cultural nature are offered, with college credit, if desired.

Interscholastic Activities. In cooperation with several University departments and state agencies, the Division conducts annual contests in debating, athletics, and academic subjects.

Lectures. Popular and technical lectures and readings by members of the faculty are arranged for schools, clubs, and other community organizations. Lecture courses either on a particular subject or a series of topics may be obtained.

Library Service. Reading courses, books, and reference materials are loaned to individuals and groups interested in the systematic study and discussion of literary, historical, social, and other subjects. There are available about one hundred outlines for study suitable for women's clubs or other groups.

Postgraduate Medical Courses. Each year a series of clinics and lectures is conducted for practicing physicians at two or more centers.

Public Forums. The Extension Division conducts a public forum program, the purpose of which is to stimulate study and discussion of public affairs as a means of extending civic knowledge and strengthening democracy.

Radio. The University Radio Studio produces several series of educational and entertainment programs that are broadcast weekly through the facilities of ten or more commercial radio stations.

Short Courses and Institutes. Short Courses and Institutes are held at the University for groups interested in intensive training and instructional programs.

Summer Courses for High School Students. The Extension Division in cooperation with the Department of Music conducts the annual "All State High School Music Course" at Chapel Hill during the first term of the University Summer Session. The Annual Summer Session in Dramatic Art for high school students is sponsored jointly by the Division and the Department of Dramatic Art.

The University News Letter, containing the results of studies made of economic and social conditions in North Carolina, is sent free to residents of the state.

For information about any of the above services, write to the UNIVERSITY EXTENSION DIVISION, Chapel Hill, N. C.

REGISTRATION BLANK FOR CORRESPONDENCE COURSES
University Extension Division
Chapel Hill, N. C.

This blank is to be filled out completely in applicant's own handwriting. It must be accompanied by check or money order to cover fee. For course fees for non-residents of North Carolina and registration fee for all, see page 8.

In sending this application, I agree to abide by the rules and regulations of the Extension Division as set down on pages 7 to 34 of the catalog:

1. Name (in full) .....Age.....
(Mr., Miss, or Mrs.) Race.....

2. Present address .....
(City) (County) (State)

3. Permanent address .....

4. Previous education .....

5. If you have ever registered in any division of this University before, underline which division and give date: Residence term.....Summer school .....Extension class..... Correspondence.....

6. Number and subject of course desired.....

7. Kind of credit desired (mark X): Undergraduate degree credit.....
Toward what degree?.....At what institution?.....
If credit is desired elsewhere, have you secured the approval of the authorities? .....Certification credit.....Professional credit. .....No credit.....Occupation.....

8. If teaching, give KIND of certificate held.....Class.....No.....

9. Do you wish to purchase the books through the Extension Division?.....

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   Toward what degree?.....At what institution?.....

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   .....Certification credit.....Professional credit.

   .....No credit.....Occupation.....

8. If teaching, give KIND of certificate held.....Class.....No.....

9. Do you wish to purchase the books through the Extension Division?.....

STUDY OUTLINES
LIBRARY EXTENSION PUBLICATIONS

VOLUME VII

1. October, 1940. *The United States in the World Crisis.* E. S. & J. L. Godfrey.
2. January, 1941. *The Old North State.* A. B. Adams.
3. April, 1941. *The Film Yesterday, Today and Tomorrow.* Walter Spearman.
4. May, 1941. *Religion and Contemporary Life.* Dale Spearman.
5. June, 1941. *"Eyes South."* E. S. Godfrey and J. L. Godfrey.
6. July, 1941. *Adventures in Reading, Fourteenth Series.* A. B. Adams.

VOLUME VIII

1. October, 1941. *The Modern Woman's Unfinished Business.* E. C. Baity.
2. January, 1942. *Understanding the News.* Walter Spearman.
3. April, 1942. *Adventures in Reading, Fifteenth Series.* A. B. Adams.
4. May, 1942. *Other People's Lives, Eighth Series.* C. S. Love.

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THE UNIVERSITY OF NORTH CAROLINA
EXTENSION BULLETIN

VOL. XXVI JULY, 1946 NO. 1

UNIVERSITY EXTENSION IN ACTION

RUSSELL M. GRUMMAN

Director, University Extension Division

With the Collaboration of

C. E. McIntosh, Roy W. Morrison, Agatha Boyd Adams,
Rex Winslow, Katherine Jocher, Albert Coates,
Sturgis E. Leavitt and Thomas J. Wilson

THE UNIVERSITY OF NORTH CAROLINA PRESS
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FOREWORD

The term "University Extension" in the title is understood to include, as nearly as possible, all of the extra-mural services and activities of the University. Since the University Extension Division has been responsible for the major portion of these action programs, the account herewith presented is unintentionally, but nevertheless quite naturally, overweighted with the story of extension as formally organized and recognized at the University.

The services of the University are actually being "extended" in countless ways and in many directions. Hence it would be impracticable, if not impossible, to be all-inclusive in this volume. Chapter VI presents briefly the work of several University organizations that are considered to be important agencies of University Extension and adult education. The Extension Division maintains a close working relationship with practically all of these organizations so that there exists, in effect, coordination of effort in University Extension and cooperation within the University, which are regarded as essential characteristics of good administration.

The University of North Carolina is traditionally committed to an expanding program of University Extension. It is to be sincerely hoped that this volume may assist in evaluating the institution's effort and help lay the foundation for intelligent planning and development of University services to all of the people of North Carolina.

The author wishes to acknowledge with great appreciation and sincere thanks the assistance of the collaborators who contributed chapters and articles as follows: C. E. McIntosh, Historical Background; Roy W. Morrison, Special Aspects of Extra-mural In-service Teacher Education; Agatha Boyd

Adams, Library Extension Service and War Information Center; Rex Winslow, Bureau of Business Services and Research; Katherine Jocher, Institute for Research in Social Science; Albert Coates, Institute of Government; Sturgis E. Leavitt, Inter-American Institute; and Thomas J. Wilson, University of North Carolina Press.

The author is indebted also to the Director of the Sesquicentennial Publications, Dr. Louis R. Wilson, who has been extremely helpful in planning the book and in supplying data from his experience and long connection with the University.

If a dedication were in order it would be made, with humble thanks, to the author's wife, Vida Church Grumman, who carried the major part of the load of assembling the material and of writing the preliminary drafts of most sections of the book not listed above.

University Extension in Action has been prepared as a contribution of the University Extension Division to the Sesquicentennial Celebration of the University and will be included in the Sesquicentennial Publications of the University.

Chapel Hill, N. C. R. M. G.
July 1, 1946

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INTRODUCTION

With few exceptions, the University Extension Division serves as the administrative agency through which are conducted the extension activities of the University of North Carolina at Chapel Hill. In carrying out this function, the Division endeavors to work cooperatively with all departments, schools, and other University organizations. Therefore, in reviewing the major extension activities of the past thirty-four years, credit for successful achievements is shared by administrative officials, faculty members, and members of the Extension Division staff. The record is impressive, perhaps, from the viewpoint of variety and scope of University service to the State. It gives emphasis to the fact that the University of North Carolina is "The University of the People."

Since the activities and services are not easily arranged chronologically, they have been classified for presentation under six headings. Space permits only brief statements about the extension services included in this review. The story is incomplete, but it is hoped that it is sufficiently comprehensive to give a fair picture of University Extension in action at the University of North Carolina.

It may be truly said that citizens of North Carolina look to the University as their institution and turn to it for information, inspiration, and leadership. Hence the pattern of University Extension has been shaped very largely by the demands made upon the University by the people. Citizens of the State have every reason to expect their State University (created and supported by them) to be democratic and to serve their social, economic, intellectual, and cultural interests. This is the task and the special responsibility of the University Extension Division. The work of the Division, therefore, includes the planning, organization, promotion, and administration of general adult

educational activities, public relations, and service projects. Internally, it is organized into a small number of bureaus to facilitate this work for the University. The University, through the Extension Division, has been an active member of the National University Extension Association, since the Association was established in 1915. An Administrative Board composed of several deans and faculty members advises the Director in matters of general policy.

The University Goes to the People

The original slogan of the University Extension Division, "The State is the Campus," has become a reality. From Manteo to Murphy, in every county and in every community, the University has literally gone to the people. By means of home study courses, library service, extension classes, lectures, the *University of North Carolina News Letter*, radio programs, recreational and cultural activities, the campus of the University of North Carolina has become coterminous with the boundaries of the Commonwealth. Thus, the facilities and services of the University continuously flow to the people in an ever-widening stream. Actually the requests for educational services are, at times, greater than the ability of the University to meet them, *i.e.*, in terms of personnel and financial resources. Those persons receiving formal extension instruction are quite willing to pay the nominal fees charged (usually determined on a cost basis). But most of the non-credit or informal types of adult education such as radio programs, public forums, and lectures, are non-revenue producing activities; therefore, such services must be subsidized by the State. It has been the policy of the Division to initiate programs of information, training, and education of interest to the general public. These frequently result

in requests from individuals and organizations for more specific reading or study courses to meet their particular needs.

The People Come to the University

The interchange between the University and the people operates on the campus at Chapel Hill as well as on the statewide campus. Within recent years with the addition of The Carolina Inn, The Institute of Government building, and improved housing and eating facilities on the campus and in the community, there has developed a new trend in University Extension—the coming of the people to the University for meetings, conferences, short courses, institutes, clinics, symposia, and other forms of education for part-time students. Several of these activities have become annual events. Some people come for the professional development to be gained through refresher courses; others, as members of state organizations interested in special programs of education; still others come simply for "the sake of learning."

The University of North Carolina has become known as an intellectual and cultural center. As such it seeks to share that distinction and that responsible opportunity with the people of the region and nation. In Chapter VI it will be seen that this function has also been extended to the peoples of Latin American countries and to those from other parts of the world.

People come to the campus to attend a lecture or a concert, to visit Person Hall Art Gallery, to witness a performance by The Carolina Playmakers, or to see a football game; but they also come to stay several days or even six to eight weeks to attend some course or institute. Since 1935, The Extension Division has served as the administrative agency, working in cooperation with academic departments and schools, responsible for making and handling all local arrangements, including housing and financial, in connection with group visitations of all

kinds. Many of these activities are referred to in Chapters II and V. In the main they represent a cooperative educational endeavor between the University, on the one hand, and associations of people, on the other.

It should be emphasized that the Extension Division works very closely and cooperatively with the Summer Session in sponsoring and conducting the special programs for adults held during the summer months. At that time, more visiting groups can usually be accommodated and served by the faculty. It should also be pointed out that visiting instructors are frequently employed when needed to supplement the regular staff.

The University and the Public Schools

President Frank P. Graham had this to say about "The Schools of the People" in his inaugural address, delivered November 11, 1931: "The public schools are now and will increasingly be the community center of university extension and adult education. The University will not only extend and share its life with the public schools and the people but University men . . . will fight for the schools of the people. . . . The University is resourced in the public schools and the public schools are resourced in the University. They go up or down together."

This statement expresses the spirit of the historical relationship between the University and public education in North Carolina. It also voices the underlying philosophy of the long-standing policy of the University with respect to this phase of University Extension. With the possible exception of library extension service (although even this began as a supplementary aid to schools), extension activities and services with the public schools have been the most consistent and far-reaching of all extension work thus far. The first organized effort on the part of the University along this line was the formation in 1912 of the

North Carolina High School Debating Union, simultaneously with the organization of the Bureau of Extension. High School relations have since been developed to include athletics, dramatic art, music, graphic arts, English, academic contests, student government, and journalism. In practically every case, these activities have been conducted as a means of assisting the schools with their regular or extracurricular programs and to provide impetus, stimulation, leadership, and direction to them. In most of this work, there was no other state agency available to undertake it, and there have been many instances in which the University has been requested to assume the responsibility. As the pattern of public education in North Carolina changes so the plan and scope of extension activities in this field must change. Such adjustments, to conform with modern practices and principles of education, are not only incumbent upon the University, they should emanate from it as a natural part of its leadership of education.

The most important and the most effective phase of University Extension relationship to public education in North Carolina has been the program of in-service teacher education. Working in close affiliation with the State Department of Public Instruction, the North Carolina Education Association, the North Carolina College Conference, and the University departments concerned, the Extension Division has made a real contribution to the improvement of classroom instruction, supervision, and the administration of schools. Indirectly, but no less effective, has been the cooperative work with the North Carolina Congress of Parents and Teachers that has resulted in better understanding of and many improvements in the school program. Public opinion based upon an intelligent understanding of education leads in most instances to constructive school legislation and public support. This has been and should continue to be one of the purposes of University Extension as it relates to public education.

The University and Adult Education

One of the chief functions of the University Extension Division has been to promote and conduct educational programs for adults and to train adult education teachers and leaders. Most of the activities and services of the Division may be classified as forms of adult education. University Extension has become recognized as one of the leading agencies in North Carolina for the development of the intellectual, cultural, and recreational life of the adult citizens of the State.

The term, "Adult Education," in North Carolina no longer suggests an educational program confined to adult illiterates but implies and includes instruction and all other kinds of educational opportunity for out-of-school youth, as well as for adults regardless of their social, economic, or academic status. Such an interpretation of adult education suggests an all-inclusive, comprehensive program as the objective of the Extension Division. Thus the University has attempted to implement this idea by working with any group in the State and with regional and national organizations interested in adult educational programs.

Students of adult education including visitors from several foreign countries have come to Chapel Hill to observe University Extension in action.

University leadership has made contributions to the development of the adult education movement not only in North Carolina but also in the South and in the nation. Notable, too, have been recent efforts and programs of adult education in Inter-American and International Relations.

Many new programs of adult education are being developed with which the University of North Carolina will continue to play a leading role. It has a unique opportunity and responsibility, as a state agency, to train leaders and to direct the education of adults.

University Extension in Wartime

The pattern of University Extension during the war emergency, 1941-1945, was quite similar to that during 1917-1918. In each of these war periods, the University made major adjustments to serve the nation. Extension services were likewise changed to meet the needs of the times.

During World War I, the Bureau of Extension was very active in publishing and distributing literature, in sending lecturers to communities throughout the State, and otherwise leading the wartime thinking and discussion of North Carolinians.

Before Pearl Harbor, the Extension Division served as the coordinating agency of the University's Center for Civilian Morale Service. This led to the organization of the War Information Center at the University Library which served both the campus and the State.

The organization of federal agencies such as the Office of War Information, the Office of Price Administration, War Manpower Commission, Engineering, Science, and Management War Training, United States Armed Forces Institute, and others gave the University many new avenues of extension service during World War II. Participation of the University of North Carolina in these services is described briefly in Chapter VII.

Other adjustments to wartime conditions were, of course, necessary, including the modification of the regularly established extension services. Administrative, financial, and personnel problems were pyramided in the attempt to keep alive essential activities in addition to the new activities more directly related to the war effort.

University Extension Tomorrow

Solid foundations have been laid for the future expansion and development of University Extension at the University of North Carolina. A sound philosophy underlies and supports

the idea that, along with teaching and research, one of the major functions of the modern state university is extension.

University Extension in North Carolina in the future will depend upon intelligent planning and imaginative leadership. It, too, will be necessarily limited by the resources and wealth of the State which it should indirectly help to create. Within the University itself, University Extension should expect to receive an equitable share of state appropriations in order to carry out the essential features of its function and responsibility to the people of the State. Financial subsidy of extension services should not, however, be permitted to jeopardize or to curtail the resident functions of the University. Since many extension activities produce revenue and others may be financed partially or wholly through grants, it may be assumed that no serious administrative problem or policy is involved that would effect plans for expansion.

In Chapter VIII an attempt has been made to outline the trend of University Extension in North Carolina. Some of the developments mentioned are already well underway, such as the Communication Center, and the services to business, industry, and to organized labor. Part-time educational programs for veterans will unquestionably play an important role in the immediate future of adult education under University leadership.

Beginning July 1, 1946, the Extension Division, in cooperation with the Institute for Research in Social Science, will have the part-time services of a Director of Research Interpretation. It is a significant fact that the results of research must be translated in simple terms, clearly interpreted, and channeled through the existing media and agencies of adult education in order to render its greatest service to society and civilization. This should be one of the principal objectives not only of the Extension Division but also of the University. It may well shape and determine the future of University Extension and its relationship to the people of North Carolina.

I

HISTORICAL BACKGROUND

HISTORICAL BACKGROUND

C. E. MC INTOSH*

Throughout its existence, the University of North Carolina has sought to link its activities with those of the State. During the early years it was, of course, a small struggling institution, with little more income than was demanded by its work on the campus; for this reason, it had to confine its services to the public to such acts as writing letters in answer to specific inquiries, sending members of the faculty to address school commencements and similar gatherings, and making occasional surveys of the State's resources. Roughly, this type of unorganized contact with the people continued up to the outbreak of the Civil War.

When, in 1875, the University reopened its doors, it sensed keenly the need for a vastly expanded system of public schools, and both President Battle and his faculty would gladly have furnished the leadership required had they been free to do so. At that time, however, the operating budget was under even more stringent limitations than during the later years of the previous era; consequently, the University had to resort to a plan of doing vicariously the work which it could not do directly, that is, it had to inculcate its ideals in the minds of students and trust them to carry the message to the people.

Perhaps no other University decision ever achieved greater results; for in less than a decade a group of vigorous young educational evangelists went forth from the campus, each fired with consuming zeal for better public schools. The accomplishments of four of these in particular may be mentioned by way of illustration.

---

* Mr. C. E. McIntosh is Acting Head of the Bureau of High School Relations of the University Extension Division. He was Executive Secretary of the School of Education from 1927 to 1933.

In the 1880's, the State Department of Public Instruction employed Charles D. McIver and Edwin A. Alderman, recent University graduates, to hold a series of teachers' institutes in all parts of North Carolina. Both entered enthusiastically upon their new tasks, their plan of procedure being to hold professional meetings with teachers and prospective teachers for the first four days of the week, and on the last day of the week to invite the public to a general educational rally. Wherever they went they stimulated the average man and woman to a belief in better schools, and before the close of their campaign the legislature had been persuaded to establish at Greensboro the State Normal and Industrial College, now the Woman's College of the University of North Carolina. The chief purpose of this institution was to train teachers for public school work. McIver became its first president and for a time Alderman was a member of its faculty. Their slogan was, "The teacher is the seed-corn of civilization, and none but the best is good enough to use." Their first graduates became teachers in 1893, each carrying into her community the doctrine that only through greater enlightenment could North Carolina hope to solve its weighty problems and take its rightful position in the sisterhood of states.

In 1900, Charles B. Aycock, of the same University generation, was elected Governor. He came to office with but one avowed purpose, to place a good public school within reach of every boy and girl in the State. During the four years of his administration, and indeed up to the time of his death in 1912, he devoted his energies and his great eloquence to the uplift of the common man, his most famous phrase being "North Carolina is too poor not to educate her children." As he left the Governor's chair, he made the proud boast that for each day since his inauguration his State had built a public schoolhouse.

In 1903, when the State Superintendent of Public Instruc-

tion died, Aycock appointed his college mate, James Y. Joyner, to fill the unexpired term. The new appointee, like McIver, Alderman, and Aycock, eagerly grasped his opportunity, his major thesis being that since the education of its children is so important to each community, the city, village, or school district ought to vote local taxes for extended school terms and better prepared teachers. His argument prevailed, and for the next fifteen years it was news when a local school-tax election failed of approval by the voters. Joyner remained as superintendent until 1919, by which time North Carolina was a virtual network of local tax districts with a fifty per cent longer average school term than prevailed a decade earlier. Since he relinquished active leadership and retired to private life, he has continued to be a staunch and able advocate of general popular enlightenment.

These four alumni are but representative of many others who undertook to carry the University ideal to citizens dwelling at a distance. The combined labors of all are a testimony to the University's desire to serve, although it could not itself enter more fully into the work which it so heartily approved.

The Beginnings of University Extension

By 1907 the University was able to extend its services to the public in a more direct manner. The library under the direction of Dr. Louis R. Wilson moved that year into a large, well planned library building. Wilson classified and arranged everything according to modern standards, and found that he could, if he but had the proper channel for distribution, make a great amount of reading matter available to the public. In his report to the President, he said that books and pamphlets are of small value, so long as they remain on library shelves, that the University ought to have some means of lending these books

and pamphlets to schools, clubs, and individuals, so that they might be of actual service. This belief of the librarian gave initial impetus to what is now called University Extension.

N. W. Walker had come to the University in 1905, as professor of secondary education. When, in 1907, the legislature established a fund for the aid of secondary instruction, Walker became State Inspector of High Schools. In traveling about the State, he at once saw the need for better library facilities. Since no legal provision had been made for adequate school libraries, he suggested to the superintendents and principals that they borrow books from the University. This plan proved a godsend, for it brought University and communities closer together and enabled each to appreciate the problems of the other. University Extension began to function through the cooperation of the librarian, the State Inspector of High Schools, and school officials.

In the fall of 1912, the two literary societies of the University, the Dialectic and the Philanthropic, sought to stimulate in high schools the same type of debating program which they had carried on for a century. They proposed to select a query, to prepare and publish a bulletin containing arguments both pro and con, and to distribute this bulletin to any high school which would agree to carry into effect the general plan of operation. The announcement that such a discussion program would be offered met with instant and widespread approval, and the societies were encouraged to provide a joint committee of students to put the plans into execution. Librarian Wilson and State School Inspector Walker became faculty advisers to the student committee, and helped steer the new enterprise through its first tentative venture. To their wisdom is due in large measure the success immediately attained. The High School Debating Union, as it was called, enrolled the first year ninety high schools scattered throughout North Carolina. The outcome of the first

annual contest was highly encouraging. Newspapers spoke glowingly of the service which the Debating Union had rendered to the people. The organization grew rapidly until, by 1917, three hundred and thirty-two high schools had enrolled and the combined audiences reached into the thousands. High school debating at once found its place in University Extension.

The Faculty Committee

In the fall of 1911, President Francis P. Venable appointed a faculty committee to study the whole question of how the University might more adequately serve the State's citizens. The chairman of this committee was Dr. Edwin Mims, and his associate members were E. K. Graham, M. H. Stacy, A. H. Patterson, and N. W. Walker. During the year Dr. Mims resigned from the faculty and accepted a position at his alma mater, Vanderbilt University. His place as chairman was taken by Dr. Louis R. Wilson who was vitally concerned with providing better services to the people. His report to the President, December 1912, summarizes what the committee did during the year of study:

1. Investigated the types of work usually considered as university extension
2. Held a series of lectures on literary topics at Winston-Salem
3. Planned for further lectures in cooperation with other colleges in the State, and with the State Literary and Historical Commission
4. Provided for the lending of materials from the University Library
5. Agreed upon plans for enlarging extension work in the future

The committee having been given an allotment of six hundred dollars from the University's printing fund, issued two

bulletins, one entitled "A Professional Library for Teachers in Secondary Schools," and the other "Addresses on Education for Use in Declamation, Essay-Writing, and Reading." Two thousand copies of the former and four thousand copies of the latter were quickly distributed on order. More than eight hundred copies of the latter were requested after the issue had been exhausted. The committee felt, therefore, that there was a genuine demand for the type of service it proposed. With the survey already made, there was needed only a functioning organization.

The Bureau of Extension

Such an organization was established in 1913. It was called the Bureau of Extension, and consisted of a faculty committee headed by the University Librarian, Dr. Louis R. Wilson. It received the full support of Acting-President E. K. Graham, who had been a member of the faculty committee from 1911 to 1913, and through him, when he became President in 1914, was given a place of first importance in the work of the University. His aid was particularly valuable in providing funds for the establishment of the Department of Rural Social-Economics (1914), under Professor E. C. Branson, and for the publication of *The University of North Carolina News Letter* and *The North Carolina Club Yearbook* which were edited by Professor Branson and were widely distributed throughout the State. The following list of services, together with the names of those responsible for their direction, indicates the manner in which the Bureau, in the first half decade of its existence, attempted to coordinate and expand the extension activities of the University:

1. General Information—Director Wilson
2. Social and Economic Surveys—Prof. E. C. Branson
3. Public Discussion and Debate—Asst. Director Rankin

4. Correspondence Instruction—Prof. L. A. Williams
5. Lectures—Asst. Director Rankin
6. Municipal Reference—Profs. Raper and Hamilton
7. Educational Information—Profs. Noble, Walker, Williams, and Chase
8. Good Roads Institute*—Joseph Hyde Pratt
9. Medical Instruction**—Asst. Director Rankin
10. Improvement of School Grounds—Prof. W. C. Coker

Under this division of labor, the Bureau carried on its work. It had no limited field of endeavor nor did it have a pet program. Its job was to work with and through departments and agencies already established, and to use experts already available, rather than to employ personnel of its own. By so doing, it naturally drew to itself many clubs, associations, and groups, some of which had problems of a more or less lasting character, and some of which needed temporary help until they could take over their activities independently. It is, therefore, entirely beyond the scope of this sketch to go into detail concerning the various types of work performed or to evaluate any particular undertaking.

The University had reached the people. The people sought an ever-closer relationship with their University.

By 1920, the Bureau had become too important to be operated on a voluntary basis. The numerous departments and agencies concerned were anxious to maintain their relationships with the Bureau, but they could no longer do the enormous amount of work required. It became necessary, therefore, to broaden the organization, to select a full-time director, and to give him a special staff. This was done, when in 1920 the Bureau of Extension became the University Extension Division, and Chester D. Snell was appointed Director.

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* In cooperation with the State Department of Highway Engineering

** In cooperation with the State Board of Health

The University Extension Division

Under President H. W. Chase, several changes were made in University organization. Among them was the expansion of the University Extension Division.

In his first report as director of the Division (December, 1921) Mr. Snell states that the Division had been sub-divided into thirteen bureaus, each under the supervision of a faculty member or a member of the staff. These bureaus continued all of the work which had been found of special value and added new activities. A list of bureaus indicates the type of work carried on:

High School Debating and Athletics
Educational Information and Assistance
Public Discussion (Library Extension Service)
Community Drama
Economic and Social Surveys
Community Music
Design and Improvement of School Grounds
Municipal Information and Research
Community Organization
Commercial and Industrial Relations
Correspondence and Class Instruction
Extension Lectures
Short Courses and Institutes

These thirteen bureaus at once set about their tasks, and each met with flattering public response. A year later the director reported that the Division had prepared and circulated in the State nearly one million copies of pamphlets and bulletins, each dealing with some specific public interest. In addition to previous activities there had been added: a high school essay contest on "How Good Roads Are Developing in My Community," a high school typewriting contest, an inspection service among

schools of twelve nearby counties, a reading circle course for the teachers of a large city school unit, work with 167 women's clubs with a membership of nearly 3,000, aid to 145 units of the Parent-Teacher Association, community pageants in a half-dozen local settings, aid to twelve school systems in installing supervisors of music, fifteen lectures to chambers of commerce, factory councils, insurance institutes, and Kiwanis and Rotary clubs, etc. These, together with a greatly expanded program of correspondence and class instruction and a number of new short courses and institutes relating to various topics, comprised the work of the first biennium under the reorganization.

In 1923 there were 901 students enrolled in extension classes and 609 in correspondence courses, or a total off-campus enrollment of 1510 students. By 1924 the number of such students had risen to 2,638, approximately the same as the number of resident students. In 1925 there were 2,823 individual off-campus students registered for 3,969 courses. This single type of extension growth shows how greatly the people of the State had come to depend upon the University for educational services.

In 1926, Director Snell accepted a similar position at the University of Wisconsin. He was succeeded by Russell M. Grumman, who served as Acting Director until he was named Director in September 1928.

At the outset of his administration, President Frank P. Graham publicly expressed his interest in University Extension. He has continuously emphasized its importance in the life of the University and of the State. It is his conception that the University of North Carolina is and should remain "The University of the People," also, that University Extension is one of the chief means through which this ideal may be fully achieved. In his inaugural address (1931) he said:

"It is the function of the state university not only to find its

bits of truth and teach the truth gathered from scholars everywhere, but to carry the truth to the people that they may take it into their lives and help to make it prevail in the world of affairs. It is the ideal of the University Extension Division to make the resources of the universities, the discoveries of science, and the findings of the social scientists available for the people of the commonwealth. The members of the general faculty, the special library, special lectures, courses in class and by correspondence, bureaus, institutes, inter-scholastic activities involving athletics, debates, Latin, plays and playwriting, and, in an independent and far-reaching way, the general library and the Library School, all serve to carry or send the University to the people.

"The state university comes from the people and should go out to the people. The intellectual life of the university should be quickened by contact and interchange with the people. They have a common destiny in the adventure of building a nobler commonwealth. The state university cannot, as the university of the people, be an institution of a class, whether based on blood, money, or intellectual background. The state university can never lose the common touch without treason to its own nature and without drying up the springs from which flows the living waters of its own life.

"Now is the time in the midst of depression, unemployment, and educational defeatism for the Extension Division and the public schools to envisage and lay out the plans for a future all-inclusive educational program in the communities for the continuous education of all of the people as a way to use wisely the advancing leisure, to substitute cultural content for merely mechanical contacts, natural creative play for artificial and empty excitement, and to lay the intellectual groundwork for a more general and intelligent understanding of and participation

in the affairs of the world and its opportunities for a larger mastery of human destiny."

The Directorate of Extension

One of the first acts of the President, following the consolidation in 1933 of the University of North Carolina, State College of Agriculture and Engineering, and The North Carolina College for Women, was the appointment of a Directorate of Extension. The Director of the University Extension Division at Chapel Hill was named chairman, who with the Directors of Extension at each of the other instituitons compose the Directorate.

It formulates major policies and plans for University Extension of the consolidated University. Thus, duplication of effort is avoided and the resources of the three institutions are made available to the people of the State.

II

TEACHING SERVICES

TEACHING SERVICES

One of the major functions of the modern state university is continuing or adult education. University administrators are cognizant of the fact that the responsibility of the university for the educational life of the people of the state is not met on graduation day. Hence many opportunities are being developed so that adults may continue their education.

This obligation to all the people of the State has determined the pattern of extension activity. The development of extension teaching services has been an attempt to meet the educational needs of people off-campus. Originally planned in cooperation with the public school system and its own program of "In-service Teacher Training" such service has long since been expanded to meet requests from varied business and civic groups.

Extension teaching is never a static procedure. No catalog of courses offered can be printed for a year's program. Such services are built entirely upon requests, and vary not only from year to year, but from town to town, month by month.

A complete discussion of all teaching services rendered to the citizens of North Carolina would be prohibitively long, but a review of the work as carried on in five specific fields will serve to show the possibilities.

Extension Class Instruction

The story of extension teaching in North Carolina is as thrilling as that of the work of the circuit rider of by-gone days. Meeting a teaching schedule in the remote corners of the State has challenged not only the stamina of the instructor but the ingenuity of the nearest garage mechanic, who must keep the over-used Ford on schedule.

Extension classes, taught by members of the University faculty, have been held in practically every section of the State.

Starting in 1920-1921 before the hard-surfaced road made an easy path to distant towns, these instructors braved the red mud of back roads to carry knowledge to those who requested it.

In the early days most of the classes were for teachers who were raising their certificates while still on the job. Education, History, Music, Geography, English, Psychology, and Physical Education were the most popular courses. At each center two courses, or four-half-courses, were offered during the academic year. Extension courses carry the equivalent in content and time requirements as courses given in residence; therefore the same amount of credit is offered. The amount of credit earned by such instruction is, however, limited to thirteen and one-half courses.

At first classes were taught by resident faculty members only, who rushed to a nearby town for evening classes, or who spent their weekends meeting students in more distant parts of the State. Such a plan, controlled by the time involved as well as by the mileage, naturally limited the radius of service. As requests for classes increased it became necessary to employ full-time extension instructors. These full-time instructors organized their territory into circuits, going from town to town and returning to each group once a week. In order that these off-campus centers might have similar advantages as those offered at the University each instructor carried with him a traveling library, slides, maps, film strips, records, art reproductions, scientific apparatus and such other teaching aids as might be appropriate to a given situation. Loaded with such supplies, and stopping regularly at the same hotels, it is no wonder these men and women became known as "peddlers of education."

From 1926 to 1930 eight such full-time instructors were employed, who made their headquarters in the section of the State where their classes were to be held. Instructors who were

holding classes for public school personnel were thus able to devote much time in visitation and supervision, thereby rendering many additional professional services to the community. Out of this close working arrangement grew the present plan of "In-service Teacher Education." Such teaching service carried direct to the community has enabled many teachers and school administrators to raise their professional standards and helped raise the standard of education in the State.

Extension teaching services were created as a result of the requirements placed upon teachers to raise and renew their teaching certificates, but the service was not long limited to educators. Upon request, classes have been organized for social workers, public welfare officials, business men, manufacturers, salesmen, doctors, dentists, accountants, housewives, club women, churchmen and others. Some of the courses have carried regular University credit toward a degree, but many of them have been attended purely for reasons of personal improvement and cultural background. The subjects taught have been as varied as the groups making the requests, but always the class has contributed to the educational need of an adult group.

A woman's club in a remote mountain village requested a course in Art Appreciation. The instructor, a member of the Art Department, made a weekly trip to meet the class. On one occasion, when the roads were icy, her timing was thrown off schedule and she found it necessary to seek lodging in an isolated farm house. The warmth of the welcome was gratifying, but space and heat were limited and she found herself "bedded down for the night" with two small children on a pallet in front of the open fire. Due to improved roads and more reliable cars, such experiences are now history, but they serve to show the pioneering spirit that made possible the present day network of extension classes throughout the State.

Correspondence Instruction

Correspondence Instruction was one of the initial activities of the Extension Division. As early as 1913 non-credit courses were offered by means of the home study method of instruction. Since then the idea of obtaining knowledge by this means has expanded, until now it is possible to earn one year of academic credit (nine courses) toward an undergraduate degree. Courses are offered by practically every department of the University with the exception of the natural sciences.

Only minimum registration and course fees are charged. In conformity with the practice at other state colleges and universities, correspondence instruction is considered a part of the University's service to the State, therefore, it is administered on virtually a cost basis although out-of-state students are charged slightly higher fees.

Correspondence instruction is designed to provide individual instruction. In order to achieve this objective, special techniques of teaching and a plan of supervision have been developed. University standards have been maintained and safeguarded. The courses are arranged on the basis of from 15 to 30 lessons, each of which is equivalent to two class periods at the University. In addition to the use of textbooks, required in most courses, supplementary reading material is made available to correspondence students through the Extension Library Service.

A total of one hundred and fifty correspondence courses are now offered. Since 1920, more than twenty-three thousand adult students have been enrolled. These students are located in every county in North Carolina, in thirty other states and in a few foreign countries. They represent over fifty vocations. Many of them are former college students who for economic, or other reasons, have had to suspend their study in residence. Some are high school graduates starting their college study while

earning money for the stay in Chapel Hill. Others are handicapped physically and find correspondence study their only means of continuing their education. Still others are adults in pursuit of intellectual, cultural or vocational courses which will raise their professional rating.

Letters from students frequently explain their reasons for enrolling and tell of successes they have achieved because of their study. A member of the New York Giants baseball team wrote that he was studying diligently in order to complete the course he was taking for degree credit before time to join the other players in their annual practice in Florida. A nurse serving as a missionary in India explained she hoped that by taking a certain course she would receive help in developing a village health program. A student from Utah who was registered for a course in playwriting, had one of his plays published in Kozlenko's "One Hundred One Act Plays"; and a club woman who was a student in a short story course, won the Joseph P. Caldwell award for her story "November Night."

Not all attain such success but the thrill of accomplishment is shared by all who meet a need. This is evident in the following taken from a recent letter: "I'm sure glad to finish this course. It was hard sometimes to concentrate in the hut with thirty Sea Bees and a radio."

A group study plan of correspondence instruction has been developed in a few communities. Under the direction of a qualified teacher or study supervisor the plan offers students some of the advantages of class instruction and discussion. Many high school graduates unable to attend college have made use of this plan, as have adult education teachers, parents, and other civic groups.

A faculty committee has made a careful study of supervised correspondence study for high school students. Due to the number of small high schools in the State which are under-

staffed it is apparent that many students are handicapped by the limited number of courses offered. Should the University offer correspondence courses in secondary school subjects, it would be able to increase greatly its service to the State.

During the war, correspondence courses were offered to the men and women in the armed forces. That story will be found in the chapter entitled "University Extension in Wartime."

These services are rendered by the Bureau of Correspondence Instruction. Beginning with the services of a faculty member who gave part time supervision without extra pay, and a part time secretary who handled the clerical work and routine matters, it has grown to a full-sized department. At present the staff consists of a Bureau Head, an assistant, a supervisor of instruction and three full-time clerical workers, with part-time people coming in to help during rush seasons. The preparation of courses and the correction of papers requires the part-time services of about 150 faculty members.

Miss Mary Louisa Cobb has served as Head of the Bureau of Correspondence Instruction since 1921. Under her expert guidance and direction the service has been conducted in accordance with the best standards and procedures of teaching by correspondence.

Special Aspects of Extra-Mural In-service Teacher Education

ROY W. MORRISON*

During the period 1921 to about 1932 the University of North Carolina engaged in a very extensive program of in-service teacher education through extension courses that were

* Director, Bureau of Educational Research and Service; Chairman, Committee on Off-Campus Work in Education.

offered in centers scattered rather haphazardly over the State. The location of centers was determined largely by demand and was limited only by personnel, difficulties of transportation, and agreements with other institutions, a number of which also engaged extensively in such activities.

The courses were limited by University policy to those set up for regular residence work. Personnel consisted partially of regular staff members of various departments, who conducted extension courses in addition to their other departmental duties and who were paid supplementary fees for the work. Additional staff members were employed by departments at the request of the Extension Division and their salaries were paid by the Division in accordance with the regular University schedule. Administratively all extension work was under the Extension Division, but the supervision of the instructional assignments and standards was nominally under departmental control. No recognized policies obtained in the sequence of courses, the assignment of personnel, or the instructional procedures in any particular center. The acceptance of students and the earning of credit was controlled only by certification policies of the State Department of Public Instruction in the case of state employed teachers and principals, and by University regulations in the case of students regularly registered in the University for degrees. Some attempts were made by staff members cooperatively to maintain standards of instruction and to adapt these to the opportunities and limitations of field study. A large part of the financial support was earned income from tuition fees. Most of the work was done on an undergraduate level. It was carried on without relation to local school administration, local supervision, or locally important purposes and problems, except as the individual instructor might work these out. Most of the students were working according to plans for securing higher teaching certificates, rather than according to plans for securing

a college degree. Provisions had, however, been made for graduate students to earn approximately twenty per cent of the credits toward a Master's degree under instructors who were members of the graduate faculty of the University.

Around 1935 the demands of teachers for extension courses in which they could earn credits toward higher teaching certification were definitely diminishing. (The proportion of all North Carolina's white teachers holding A certificates, representing the equivalent of four years college training, had reached approximately 93% by 1941). At the time that some of the newer trends in in-service education and in supervision became clear, the number of teachers and principals who were working toward graduate degrees was increasing, and local professional groups were becoming more active in projects of local significance. During this period the old type of extension classes declined greatly in enrollment, and many other institutions in the State abandoned their extension class programs.

Between 1932 and 1937 several classes were organized in which the membership was limited to principals, superintendents, and to teachers who were recommended by administrators as outstanding in potential leadership. The courses of study were built around problems and projects of local significance. In four cases tuition fees were paid in part by the county or city Board of Education. Credits earned were almost wholly graduate credits. Approximately three hundred different students were enrolled in such classes. Local administrative personnel and projects were made a definite part of the program.

In three cases these centers became cooperative, non-credit projects. A fee approximating the average income received by the University from tuition fees in a center was paid to the University by the Board of Education. The instructor became an adviser to the local administration, to local planning councils of teachers and principals, and to committees of teachers engaged

in professional study and in projects in curriculum or school program improvement. One day a week throughout the school year was spent in visitation and in conferences. There still was no official institutional recognition of the possibilities of this type of in-service teacher education as an integrated part of a total teacher education program.

During 1939, as a part of the planning undertaken by the University in its cooperation with the Commission on Teacher Education, a review was made of the program of in-service education of teachers. The need was recognized for organization, policies, and procedures which would make this a part of a more progressive, more cohesive total program of teacher education. It was recognized: (a) that the provision of a graduate teaching certificate based on a graduate degree in North Carolina would create a great demand for field training on the graduate level; (b) that the University would profit greatly from wider, more intimate, more functional relationships with the schools of the State; (c) that summer school students would do much more valuable work if definite needs and problems significant in the teacher's local teaching situation and in her own professional growth were recognized in advance of her registration in the courses of her program of graduate sutdy; (d) that the resources of the University should be made available to groups of teachers, principals, and superintendents who, independently or as a part of the program of professional organizations or that of the State Department of Public Instruction, might be undertaking projects in the improvement of education locally; and (e) that certain school systems in the State might serve as valuable laboratories in graduate and undergraduate teacher education as well as in the after-graduation guidance of teachers. It was recognized that the development of such a program would soon require the coordination of the interests, resources, and activi-

ties of all the various institutions in the State which were engaged in teacher education.

Since the development of such a program would involve a considerable period of study and experimentation, the following possibilities were seen as immediately available for experimentation:

1. A program of graduate study in Saturday classes for principals and teachers at Greensboro and Chapel Hill. This was to be worked out by using the regular faculty, making it a part of the regular University program and developing it along lines found to be most useful to teachers and principals in terms of their own purposes and problems. This has been in operation for four years. During 1940-41 limitations were placed on the amount which this type of study should represent in a student's total program of graduate work and on the amount which a student might do in any one school year. The amount was limited to one-half of a student's total program and to ten quarter hours in any one school year. A careful study of the experience is now being made, with a view to making any desirable changes in the program.

2. A further development of extension classes on a graduate level. This was to be undertaken so far as demand and personnel permitted. These were to be primarily laboratory courses which were to be utilized not only by the individual student for his or her purposes and problems, but by the school system for the study of locally significant problems and for the development of curriculum materials and plans for local professional projects. Two notable examples of this were worked out: (a) in Gastonia by Dr. W. E. Rosenstengel in curriculum evaluation and in planning for a period of curriculum revision; (b) in Columbus County by Dr. Rosenstengel and by Dr. John Ludington of State College in curriculum study with special emphasis on Industrial Arts. One difficulty has proved to be

that the program of study is financed by the fees of individual students and hence the school system has no special stake in the experiment. In these two cases this was off-set by the provision by the Board of Education, and by the joint financing of a special series of conferences for all the teachers and principals of the system.

3. The development of a number of non-credit extension centers. Two of these have been under way for some time, in Cleveland County and in Stanly County. The latter includes also the city system of Albemarle. One was carried on for a year in Rutherford County, but was discontinued because no one from the faculty could be released by the University to carry it on. An additional center is planned for in Gastonia, supplemented by a credit study center, which is planned primarily for the teachers and principals of Gaston County. The cost in each case is carried by the school system.

In each of these centers, one day a week is spent by a faculty member in visiting schools and classrooms with the superintendent of schools. These visits represent conference periods with teachers and principals spent in discussing problems and projects included in the program. The afternoon and early evening are spent in conference with committees of teachers or principals engaged in study or production. In each case the program is planned and directed by a committee of teachers and principals with the superintendent and instructor acting as consultants. Time and financial limitations have prevented full utilization of the University's resources in these centers. To a limited extent, experiences in these centers have been utilized in summer school programs, especially in the workshops of 1940-41.

4. A program of close cooperation with and service to state and local teacher organizations. There are two objectives in this program: First, to serve worthy undertakings which repre-

sent teacher growth and the improvement of education; and second to utilize the outcomes of such undertakings in the program of teacher education. During a four year period 1938-42 the major emphasis of the North Carolina Education Association was the stimulation of programs of professional study, experimentation and development in local professional groups. Handbooks for the stimulation and guidance of such projects were developed by a State Planning Committee.

During three of these years 1939-42 the writer was chairman of the State Planning Committee, and, with other members of the faculty, cooperated very actively in promoting and directing this program both in regional meetings and in local units of the Association. In addition, the campus facilities were extensively used for cooperative planning conferences by the Association and by its departments, notably the Department of Classroom Teachers. Further cooperation in preparing bulletins has been sought by this and other departments, most recently by the Elementary Principals.

One direct outcome of this cooperation was the workshop program of 1940 and 1941. These workshops were sponsored jointly by the Association and the University. Most of the participants and many teachers and principals who began their graduate study during this period had been very active in the Association's state and local activities. In one case, in the Summer School of 1940, twenty-seven teachers and principals were enrolled from one county which had been very active and in which one of the cooperative centers, described in section 3 above, was located.

5. A program of systematic cooperation, assistance and guidance for groups of teachers and for local school administrators. This program as it develops is intended to supplement and to extend the four developments listed above. It is planned that the Bureau of Educational Research and Service shall be the

coordinating and distributive agency for this phase of field activity. In the past this Bureau has been chiefly a test sales and service agency. The research and broader service aspects were envisioned from its beginnings under Dr. M. R. Trabue. These were more specifically provided for during the departmental administration of Dr. Harl R. Douglass, in 1939. Lack of funds and limitation of personnel have prevented extensive development.

The Bureau is now engaged in all of the developments described above. As rapidly as funds can be secured and the resources of the Department and of the whole University can be utilized, the following forms of service will be developed:

a. Cooperative surveys of schools and school systems.
b. A further development of cooperation in work conferences and institutes.
c. Bulletins of information and suggestion for use by school groups.
d. Bulletins reporting valuable experiments and development in the field.
e. Bibliographies for use by study groups and in building professional libraries.
f. Correspondence service on questions and problems from the field.

In all of this, besides problems of financing, organization, direction and evaluation, two problems are of vital significance. While some progress has been made with each of them, much more careful study and careful planning and execution remains to be done. The first problem is coordination with the purposes and activities of the State Department of Public Instruction. The relations between the University and the State Department have always been close. During recent years valuable progress has been made in three projects: the development of new teaching and administrative certificates on a graduate level;

the development of a statewide study of teacher education, one phase of which is "a study of professional growth and study by teachers in service"; and in planning the transition from an eleven to a twelve year curriculum for the schools of the State. The second is coordination of the field activities of the institutions of the State that are engaged in teacher education, especially the state supported institutions. The basis for such a coordinated program is being laid in the on-campus program, but the problem of coordination of field activities remains to be attacked.

In 1944-45 a committee from the Department of Education was appointed to study the whole program of off-campus teacher education. This Committee recommended to the Department and to the Extension Division certain policies. The purposes of these recommendations were: (1) to coordinate the off-campus and the on-campus work of the Department as to personnel, courses, and non-instructional services; (2) to maintain high standards of graduate instruction and to provide more careful guidance for beginning graduate students; (3) to carry on a more careful selection of service centers; (4) to provide for better collaboration between the University and other agencies, particularly the local administrator and local teachers associations in planning and carrying out the program of service in the several centers selected each year.

During this period increasing numbers of requests for extension classes, for local workshops, for consultant service, and for non-credit study-direction have come from administrators and from teacher groups who want assistance in professional programs locally planned and administered. In some instances classes serve as planning and work centers for activities which involve the whole personnel of a county or city school system. In one instance, 1945-46 is the third year of an experiment in cooperative supervision. In another, a city and county system

are using a non-credit study center to begin a cooperative evaluation of the school program. In still another, a summer workshop is being planned to further a program of curriculum study already begun on a non-credit study basis.

Post-Graduate Medical and Dental Courses

Two large professional groups which have taken advantage of the teaching services offered by the Extension Division have been the doctors and the dentists. The first course for doctors was held in 1916. Since then post-graduate medical courses have been considered a regular extension activity, even though there have been interruptions in the schedules due to economic and war conditions. The story of that first class is ably told by Dr. Louis R. Wilson in Bulletin No. 7 of the U. S. Department of the Interior.

"Conservation of Public Health has received steadily increasing consideration throughout North Carolina from many individuals, organizations, and public institutions during the past decade. Among these has been the university, whose participation in the campaign for increased physical welfare has been expressed through the members of its medical faculty. In order to further emphasize the importance of this matter and render a more extensive service than was practical through the first two-year medical courses given by its medical department and through the occasional addresses delivered by members of the medical faculty, the university, at the suggestion of Secretary W. S. Rankin, of the State board of health, in the summer of 1916 instituted post-graduate courses in medicine for the benefit of practicing physicians. This work, which proved very successful, was carried on jointly by the university and the State board of health.

"Two courses, both in pediatrics, were conducted, one being for physicians in eastern Carolina, the other in western Carolina. One was for 16 weeks, the other for 12 weeks. They consisted of lectures and clinics under the direction of Dr. Lewis Webb Hill of Harvard University, and Dr. Jesse R. Gertsley, of Northwestern University, both acknowledged experts in their field.

"Under this plan the teacher went to the doctors practicing at home, instead of a few of the best of them going north to him, for several weeks of clinical

work. Six towns in eastern North Carolina reasonably close together, with satisfactory train schedules, were selected, and a class of physicians (varying in number from 8 to 20) was formed in each town from the town and its surrounding country. The first lecture was given to the class in town A on Monday morning for one hour, and a two-hour clinic held that afternoon. On Tuesday the lecturer went to town B for the first lecture there; on Wednesday to town C; and so on through the six towns on the six days of the week, going back to town A on the following Monday for the second lecture; and so on for the second lecture and clinic at B, C, etc., and so on through the length of the course. In this way the lectures in town A were all delivered on Monday, those in town B on Tuesday, etc., and similarly for the western division.

"One hundred and eighty-five physicians took the courses, or above 90 in each division. The expenses of the course were paid by the physicians, the tuition charges being about $30 for each student. A small laboratory in the local hospital was maintained in connection with each clinic."

After this fine beginning World War I caused an interruption, but by 1922 classes were revived and continued with such success that the project attracted considerable attention beyond the boarders of the State. It became known as "The North Carolina Plan" and was adopted by other states. A second break in the annual schedule came with the depression. But again in 1936, at the request of the late Dr. W. H. Smith of Goldsboro, the idea was put into operation with renewed enthusiasm.

The plan followed was fundamentally that of the original class. The advent of the automobile made transportation much simpler and it was found that doctors would attend classes from a radius of fifty miles. Instead of having morning classes the dinner meeting was initiated. Keeping abreast of new teaching techniques, the instructor used films and slides to illustrate his lectures. The laboratory clinics, still considered essential, were held in the afternoon with the visiting lecturer in charge.

The responsibility for the organization of the class was placed upon the local or county medical society in cooperation with the Extension Division. The choice of subjects and lecturers was left largely to local committees of society members,

but the Extension Division made all the arrangements and handled all financial matters.

Such courses have been held at Goldsboro, Raleigh, Charlotte, Greensboro, Greenville, Wilmington, Asheville and Durham. Attendance has varied from 55 to 250. Instructors have come from leading medical schools and centers in the United States, and represent the most forward thinking members of the profession.

The first post graduate course arranged for the dentists of the State was offered during the summer of 1928 and was the result of a cooperative effort on the part of the North Carolina Dental Society, Northwestern University Dental School, and the University of North Carolina Extension Division. The State was divided into five zones, with centers at Greenville, Raleigh, Greensboro, Winston-Salem, and Charlotte. The executive committee of the North Carolina Dental Society, working with a representative of the University Extension Division, planned the course, being guided in the selection of instructors and subjects to be included in the course by the replies to a questionaire which had been submitted to the members of the Society. The school from which the instructors were to be secured was decided upon by the executive committee, and local committees on organization and arrangement were appointed for the various centers. Newspaper stories, announcements at district and state meetings, and mimeographed material mailed to the Society's members were the methods employed to get the necessary information regarding the classes before the dentists.

Ten instructors were used, each one spending a week in the State giving a lecture, illustrated by the use of models and lantern slides, in each center.

The success of this first attempt warranted the continuation of the project. Each succeeding year dentists throughout the

State have had this opportunity to keep abreast of new developments in their profession.

Temporarily discontinued because of the war, these classes will, no doubt, be resumed at an early date.

Short Courses and Institutes

Teaching services through short courses and institutes annually serve more people than the regular University enrollment. These programs are the outgrowth of the educational needs of civic and professional organizations. Such groups submit their requests to the Extension Division which works out cooperative arrangements with the appropriate University department. The groups served vary from women's club leaders and Boy Scout executives to highly specialized scientific organizations. Likewise the amount of service rendered by the Extension Division varies with the length of course and the amount of leadership required. Not all such courses or institutes are held on the campus. They may be held at any place requested by the group to be served.

These short courses and institutes fall into the following three classifications, based upon the manner in which they originate and the amount of University assistance they receive: Those initiated by the University to fill a recognized need; those which are an outgrowth of year-round service to an organization; and, those planned by the University at the request of an organization to fill an immediate need.

INITIATED BY THE UNIVERSITY

Many short courses and institutes now held on the campus originated as a result of educational needs expressed by groups of citizens or as interpreted by University faculty members. Such courses of from three to six weeks duration are taught by college teachers, some of whom are chosen from the University faculty.

Many of these short, intensive courses carry college credit while others offer certificates of achievement or attendance. The courses are usually offered through the cooperation of the academic departments concerned and the Extension Division. The Extension Division carries on the necessary correspondence with the group desiring the course; arranges to select and employ approved instructors; clears with the Dean's office if credit is to be given; attends to publicity; orders textbooks and other supplies; makes arrangements for physical accommodations such as housing, feeding, laundry service, medical examinations, and extracurricular activities; and handles all the details of registration, including the collection of fees and paying of bills. The following incomplete list of short courses and institutes (with the names of the cooperating departments) is sufficient to illustrate the scope of the service:

Coaching School for Athletic Directors and Coaches
    Department of Physical Education and Athletics
Conference on the Conservation of Marriage and the Family
    Institute for Research in Social Science
Course in English for Latin Americans
    Inter-American Institute and Department of English
Courses for Teachers of the Physically Handicapped
    Department of Education
Courses in Nursing Education
    School of Public Health and Department of Education
Course in Photography
    Department of Physics
Creative Music Course
    Departments of Music and Education
English Institute
    English Extension and Department of English
French House
    Departments of Education and Romance Languages

High School Music Course
Department of Music
High School Course in Dramatic Art
Department of Dramatic Art
Intersession Summer Session for Teachers
Department of Education
Institute for County Public Welfare Superintendents and Directors
Division of Public Welfare and Social Work of the Graduate School
Institute of Public Health Dentistry
School of Public Health and Department of Education
Institute on the Management of Children's Institutions
Division of Public Welfare and Social Work of the Graduate School
Public Welfare Institute
Division of Public Welfare and Social Work of the Graduate School
Portuguese House
Department of Romance Languages
Public Health Nursing Course
School of Public Health
Saturday Classes for Teachers
Department of Education
Short Course for Sewerage Works Operators
School of Public Health and Institute of Government
Social Work Institute for Public Welfare Case Workers
Division of Public Welfare and Social Work of the Graduate School, Social Studies Institute, and the Institute for Research in Social Science
Southern Conference on Education
All Departments participating
Workshop in Personnel Management
School of Commerce

RESULTING FROM YEAR-ROUND SERVICE TO AN ORGANIZATION

Over a period of years a number of State organizations have developed a working arrangement with the University whereby a department furnishes leadership on a more or less continuous basis. Frequently this is done by loaning a faculty member for a study or survey in a given field. In other cases the department representative may be asked to serve on a standing committee or may be appointed a member of the Executive Board and thus meet regularly with officials of the organization. Programs for the year are worked out and the organization thus kept informed of current developments through advice and consultation with educational leaders.

In such arrangements, the Extension Division becomes the liaison agency, bringing the department and the organization into working relationship. The Division also furnishes administrative assistance in carrying out the details of the programs planned. When the short course or institute is held, the Extension Division assumes responsibility for all local arrangements, including administrative and financial matters. These programs are purely for the professional, vocational, or self-improvement of the participating members. No academic credit is granted, but occasionally the University presents certificates of attendance to those who have met the announced requirements.

The following examples of this type of activity will serve to illustrate the range of interests represented:

Annual Bankers' Conference

A representative of the School of Commerce is a regular contributor to "The Tar Heel Banker" and serves as a member of the program committee of the North Carolina Bankers' Association.

Insurance School

A representative of the School of Commerce is a member

of the program committee of the North Carolina Association of Insurance Agents.

Annual Newspaper Institute

The Director of the Extension Division and representatives of the Department of Journalism and the University News Bureau are members of the program committee of the North Carolina Press Association.

Annual Boys' State

The Director of the Institute of Government and the Director of the Extension Division are members of the Boys' State Commission, North Carolina Department, The American Legion.

Annual Dramatic Festival

Members of the Playmakers staff, and the Director of the Extension Division are members of the Executive Committee of the Carolina Dramatic Association.

Annual Carolina Institute of International Relations

The Director of the Extension Division is chairman of the Institute Committee.

Annual Parent-Teacher Institute

The Director of the Extension Division is chairman of the Committee on College Cooperation and a member of the Board of Directors of the North Carolina Congress of Parents and Teachers.

ARRANGED BY THE UNIVERSITY AT THE REQUEST OF AN ORGANIZED GROUP

Some State and regional organizations turn to the University for assistance but do not expect continuous service throughout the year. Activities that develop on this basis are of shorter duration and not likely to become annual events. A department of the University usually provides professional leadership. The Extension Division supplies administrative assistance in carrying

out the program and makes all local arrangements for the convenience of the visitors.

The variety and scope of these cooperative activities is indicated by the list of short courses and institutes given below, followed by their appropriate University sponsors—and the cooperating agencies.

Boy Scout Jubilee, Department of Sociology—Boy Scouts of America, Region IV

Health Education Conference, Department of Education—N. C. Education Association

Linguistic Institute, Department of Romance Languages—American Council of Learned Societies

Conference of the North Carolina Scholastic Press Association, Department of Journalism—State Department of Public Instruction

Professional Relations Institute, Department of Education—N. C. Education Association

Real Estate School, School of Commerce—N. C. Association of Real Estate Agents

Regional Institute of the Family Service Association of America, Division of Public Welfare and Social Work of the Graduate School

Rural Education Conference, Department of Education—Summer Session

Safety Conference, Department of Education—N. C. Department of Highways and Institute of Government

School Librarians' Conference, School of Library Science—Department of School Librarians, N. C. E. A.

Science Teachers' Institute, Department of Education—Department of Science Teachers, N. C. E. A.

State Bar Association Seminar, School of Law—N. C. Bar Association

Summer School of Photography, Department of Physics—

N. C. Photographers Association

Symposium on Accounting and Taxation, School of Commerce—N. C. Association for C. P. A.'s

Study Tours

Prior to World War II, several educational tours were conducted by the Division for college students, public school teachers, and community leaders. A faculty committee on Foreign Study, under the leadership of Dr. William M. Dey, Head of the Department of Romance Languages, established standards regarding the awarding of academic credit for courses taken on foreign study tours. Summer tours were successfully carried out in both France and Germany during the period 1927 to 1931.

A transcontinental study tour was conducted in 1930. It was a motor-camping trip organized in two sections, one for those interested in natural sciences (botany, geology, and biology), the other for students of the social sciences (sociology, economics, and geography). There were 135 members of the tour, most of whom enrolled for the courses offered. Laboratory field work was a feature of each course. Similar study tours to the west coast, to Canada, and to Mexico were operated up to 1939.

The Department of Geology and Geography has been active in sponsoring summer field courses for a number of years. Such trips are administered, cooperatively, with the Extension Division.

III

LIBRARY EXTENSION SERVICE

LIBRARY EXTENSION SERVICE

AGATHA BOYD ADAMS*

The Library, under the leadership of Dr. Louis R. Wilson, can justly be termed the "Father of Extension" in the University of North Carolina. The ideals of service to the State, upon which the Extension Division is founded, were first realized through the activities of the Library.

In his annual report as Librarian in 1907, Dr. Wilson called attention to the amount of knowledge stored within the library walls, which could only be of value if shared with those who needed it, regardless of location. He proposed that a state-wide plan of distribution be made possible. While his proposal met with no opposition, neither did it secure action of a concrete nature. The chief supporter was a member of the Education faculty, Dr. N. W. Walker, who was also the State Inspector of High Schools. He saw in the idea an opportunity to aid schools throughout the State. At his suggestion principals and superintendents grasped at this chance to supplement the libraries in their communities, which were always inadequate, if indeed they existed at all.

Books, pamphlets, and other library materials were soon finding their way over the State. The people were becoming aware of the wealth of information which the University could provide. Requests grew in both number and range of subject.

By 1911 the value of the service was so evident and its possibilities for expansion so desirable that a faculty committee was appointed to study ways and means of future development. This committee, after submitting its report, functioned as the Bureau of Extension with Dr. Louis R. Wilson as its Director. For many years Dr. Wilson retained this position in conjunction

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* Associate Head, Library Extension Department

with his library work and the library remained headquarters for the Bureau of Extension.

The service to schools has continued through the years and has been adjusted to fit changing needs. As state appropriations have been made for school libraries, individual schools have become more self sufficient and have depended less upon the University for additional books. However, there always has been and still is a continuous flow to schools of material of a specialized nature which could not be obtained through their limited budgets.

In 1915, President Edward Kidder Graham sent to the Extension Bureau a letter from a clubwoman in the State who had been assigned a paper on "Robert Browning," and he felt, not without justification, that she needed help. President Graham suggested that the Extension Bureau might well provide such program assistance to the study clubs of the State. From this suggestion, and Dr. Wilson's still earlier provision for the needs of high schools, originated two of the major functions of the present Library Extension Department: work with schools and work with clubs.

At this time, Miss Nellie Roberson, Secretary of the Extension Bureau, was put in charge of the Women's Club Section. With Mrs. T. W. Lingle, then president of the North Carolina Federation of Women's Clubs, she planned the publication of Study Outlines to be used as club programs, the forerunners of the series of widely known *Library Extension Publications* which the Library Extension Department still publishes. The first of these was *A Study of Latin America*, by Professor W. W. Pierson of the University faculty.

The early growth of this type of Library Extension service was due largely to Dr. Wilson, who understood what such a service could mean to a State meagerly supplied with libraries, and who encouraged its progress in every possible way, both as

Librarian and later as Director of the Extension Bureau. Its steady development was, however, the work of Miss Roberson, who has for thirty years been director of this service. In the beginning she was a one-woman department, selecting and packaging books and answering letters and planning programs. Later she became director of a staff of five or six people in a busy office. Under her direction the number of Study Outlines published each year has increased from one to the present six. The selection of subjects of vital interest, and of writers with a knowledge of books and a talent for this type of outline presentation, has maintained a high standard of quality in the series.

Most of the Study Outlines have been prepared by members of the University faculty or of the Library staff. Some of them have had such distinquished authors as Paul and Elizabeth Green, Howard Mumford Jones, Addison Hibbard, Dr. J. F. Royster, Dr. R. D. W. Connor, and many others now on the faculty. Two series of these outlines have been so consistently popular that a new one is published each year: *Other People's Lives,* a lively program on current biography, was originated by Miss Cornelia Spencer Love, of the Library staff, and is still written by her. The other, *Adventures in Reading,* which was originated by Mrs. J. F. Royster and continued by Professor Russell Potter, has flourished through many adventures in authorship, including Dr. and Mrs. R. P. Bond, Agatha Adams, and Professor and Mrs. Walter Spearman. Among recent titles have been *Music in America,* by Adeline McCall; *Contemporary Poetry,* by Lucile Kelling; *Gardens of the South,* by Elizabeth Lawrence and *Journey to Mexico,* by Agatha Adams.

These Study Outlines are used not only in North Carolina but by clubs and libraries all over the country. About two hundred libraries regularly subscribe to the Outlines and twenty-five or more states besides North Carolina regularly use the services of the Library Extension Department.

In addition to the services to the schools and clubs, the Library Extension Department maintains a separate collection of books of special interest to students and teachers, particularly those enrolled in correspondence courses and in extension classes. This collection also includes plays, debates, and materials for essays and term papers.

Students taking courses through correspondence depend upon the Library Extension Department for supplementary reading material. In view of the fact that the Bureau of Correspondence Instruction annually offers more than 150 courses, the task of supplying this type of material is considerable. The titles for this collection are carefully selected by the cooperative effort of the Head of the Bureau of Correspondence Instruction, the author of the course, and the Head of the Library Extension Department.

It is not necessary, however, for an individual to be a member of a group or a student in school to obtain these privileges. The services and facilities are available to any citizen interested in cultural reading. Any book in the University Library, not reserved for reference or class room use, may be lent by mail for a limited time. The collection of books in the Library Extension Department is a functional one, neither large nor static. It is constantly revised, with approximately three hundred volumes withdrawn and the same number added each year. It consists of the books in club programs still actively in use, with a basic collection of older books. There is no need for a larger collection, since the Extension Library, in filling requests from out in the State, has the privilege of using the entire Library. The Extension collection is further supplemented by the Bull's Head Bookshop, which since 1937 has been housed in the same room and managed in cooperation with the Extension Library. The books in the shop may be either rented, for a small fee,

or bought, and they also may be sent out of town through the Extension Department. Under the direction of Mrs. Charles Valentine, the Bull's Head Bookshop has become an important adjunct to the life of the University and the Library.

Perhaps the greatly-to-be-desired increase of libraries in the State and the expansion of bookmobile routes may at some future time render this type of loan service to readers unnecessary, but that millennium is still a long way off. Until it comes, the Library Extension Department will continue to furnish club programs, material for school debates and term papers, to assist correspondence students and to make books available to any one in the State who will write and ask for them.

IV

SCHOOL AND COMMUNITY ACTIVITIES

SCHOOL AND COMMUNITY ACTIVITIES

Generally speaking, most of the activities which are carried on by the Extension Division may be termed educational. Both individual and group learning results from all the subjects explained in this section. Yet, because they do not require prescribed textbooks and the usual classroom routine, they are discussed separately.

Recognizing the fact that all the departments of the University possess information and materials that could be utilized by the citizens of the State, the Extension Division endeavors to make known to the public the wealth of information and help that is available. As a result many regular services have been developed. As new requests are received the Director of Extension makes it his business to work out with the departments involved a satisfactory solution so that special services may be rendered to individuals and groups of persons concerned. More often, a department or interested faculty member initiates an idea for a new extension service to either the schools or community organizations.

Art

In an effort to create interest in and to promote art education in the schools of the State, the University cooperates with the North Carolina State Federation of Women's Clubs in sponsoring an annual school art exhibition.

The details of the plan were worked out in 1937, and the following year the first exhibition was presented. The Art Department and the Extension Division of the Woman's College at Greensboro share the responsibility of conducting the exhibition with the Art Department and the Extension Division at Chapel Hill.

Originally there were five divisions in the exhibition, namely, elementary schools, junior high schools, senior high schools,

junior colleges, and senior colleges. The exhibition was shown in two parts. The first part made up of the elementary and high school divisions was shown at the Woman's College, and the second part composed of the college division was shown at the University. After a week's showing, the exhibits were exchanged so that the complete exhibition was displayed annually at each sponsoring institution.

The work of the elementary schools and junior high schools was shown as school units, while that of senior high schools and the colleges was exhibited as the work of individuals. Awards were given in various classifications, to the first and second place winners. Honorable mention was also made at the discretion of the judge. Exhibitors were charged a small entry fee to help pay the cost of the project. Entries were made in many classifications. The 1945 Extension Bulletin announcing the eighth annual exhibition lists the following: Illustration; Posters; Modeling and Carving; Watercolor Painting, Tempera, Showcard; Prints; Costume Design; Portraits; Interior Design; Surface Pattern Design; Design; Leather Tooling, Bookbinding, Metal Work; Lettering; Construction (such as toys, marionettes, etc.); Pencil Drawing; Ink Drawing; Crayon Drawing; Charcoal Drawing; Chalk or Pastel Drawing; Sculpture; and Ceramics.

A judge, from outside the State of North Carolina, is selected by the heads of the Art Departments. Many well-known art educators have served in this capacity. The list contains such names as Victor D'Amico, Director, Education Department of the Museum of Modern Art, New York City; Ray Faulkner, Head of the Department of Art, Teachers College, Columbia University; and Ralph Pearson, of the Pearson School of Design.

All work accepted for exhibition is retained by the Exhibition Committee for circulation as a travelling exhibit throughout

the school year. Pupils and teachers are thus given an opportunity to see what is being done in other schools. The circulating exhibition acts as a stimulus to better art teaching and to improved art production. Women's clubs in the local communities help sponsor the exhibits.

In 1945 the exhibition was limited to the elementary schools. Since 1938 the North Carolina Federation of Women's Clubs has presented a certificate of award to all exhibitors whose work is selected for the exhibition. Each year the exhibition is shown in an increasing number of North Carolina cities and towns.

The Art Department also sponsors the circulation of many other exhibitions. In 1937 it acquired a collection of 70 enlargements of Miss Frances Benjamin Johnston's photographs of early North Carolina architecture, and a group of reproductions of famous paintings. These two collections were the nucleus of a number of circulating art exhibitions which have been loaned to schools and civic groups throughout the State.

The Art Department owns a collection consisting of many fine prints and reproductions which are loaned for a nominal rental fee. Many students and townspeople take advantage of this opportunity to have fine pictures in their homes and dormitory rooms.

During the last four years the Orange County Schools have used this rental service. A group of prints and reproductions are selected for the year to be loaned to the participating schools, on a monthly circuit schedule. At the beginning of the first month each school receives a picture, accompanied by mimeographed material about the artist and his subject. This material remains in the school a month and is used in each classroom for study and enjoyment. At the beginning of the next month a new print is received and the last one is sent to the next school as scheduled. In this way each class has experience with eight different prints during the school year.

The Parent-Teacher Associations have also used these prints for study while they were in the schools. Children and parents thus enjoy good art together.

Audio-Visual Education

While the "Magic Lantern" slide was still a mystery to many people, the Extension Division recognized it as a possible method of speeding up the learning process. Convinced that the eye makes possible detailed impressions upon the mind, enthusiasm for this method of instruction led to the establishment of the Bureau of Visual Instruction, in 1924.

Commercial companies had for many years marketed "stereoscopic views," and were rapidly turning their large collection of negatives into this new product, the lantern slide. Negatives which could justly be called educational, were limited to views of distant places and people and the resulting slides were related only to the teaching of history and geography. But such limitations in no way lessened enthusiasm. The Bureau acquired such slides as were available and began to circulate them not only to schools throughout the State, but to women's clubs, churches and other community organizations. Frequently mimeographed material accompanied a collection of slides, providing a lecture to be read while the slides were shown.

The possibilities of visual instruction were recognized by a rapid expansion of material covering many subjects. Science classes were soon able to see microscopic flower sections magnified to study proportions, and classes in rural economics had visualized for them the tragedies resulting from soil erosion.

The idea spread rapidly. Parent-Teacher Associations in many cases assumed the responsibility of financing the necessary projectors and equipment for such teaching. The demand for slides increased and the Bureau served as a depository for thou-

sands of slides, thus making a large collection available to schools which would otherwise have access to only a limited number.

The motion picture film was the next step in progress. The history of the educational film runs parallel to that in the entertainment world. At first only the crude silent motion picture was available. Rapid improvements in production techniques quickly followed. Then the sound track was added and later color was made possible.

With each new development the Extension Division adjusted equipment, personnel and methods of distribution. Even the name was changed to include sound so now this material is handled by the Bureau of Audio-Visual Education.

The remarkable training records made by the Army and Navy have demonstrated the limitless possibilities of audio-visual aids. The idea of such instruction no longer has to be "sold" to the public. Several problems, however have to be met and continue to challenge those who desire to render a complete service to the schools and civic organizations of the State.

Distribution has from the beginning been a problem. Breakage, train and bus schedules and the irresponsibility of the human element has made schedules impossible many times thus discouraging would-be users. Distribution has also been curtailed by lack of equipment. Only schools with electricity, a projector and means of darkening the class room have been able to consider such teaching aids.

The rapidity with which schools are recognizing these items as standard teaching equipment is most encouraging. In many communities the equipment is purchased through co-operative means and is used by all civic groups. Circuits for distribution are proving highly satisfactory and as duplicate copies of titles are possible, schedules are more easily met.

Correct utilization is another matter to be understood before

satisfactory teaching will be attained. Slides and films cannot be considered a short-cut to instruction. On the contrary, a teacher attempting to use educational films must develop a technique for handling such material and must be willing to devote hours to preparation previous to classroom showings. A definite effort to attain best results is being made. Films showing proper method of presentation have been made to aid the teacher in evaluating his own use of the material. Manuals for use accompany many films. Lectures and demonstrations are also held, upon request, for the training of teachers in this new teaching technique. Correct usage is one of the most important considerations in the development of an audio-visual aids program. The best film is of little value unless properly presented.

The third problem is the lack of an adequate supply of suitable films for teaching purposes. Having had their attention focused upon the possibilities of audio-visual aids during the war, many teachers are now seeking new materials. Regular users of films are finding some of the existing material faulty or inadequate. All known resources are now being utilized to meet this situation. The Head of the Bureau who has had experience in both the production and the use of teaching films, consults faculty members, school superintendents, and teachers, regarding their needs. He then contacts producers and distributors to procure the best available educational films. Teaching films produced by educational experts, to meet specific needs is the next step. The University plans to engage in the production of documentary and educational films in the near future.

The library of the Bureau of Audio-Visual Education now contains 2500 slides and approximately 1000 films. It also serves as a depository for films loaned by domestic and foreign organizations, thereby providing the people of the State authentic productions from many educational agencies at home and abroad.

Debating, Athletic, and Academic Contests

Each spring since 1913 the campus of the University of North Carolina has swarmed for three days with high school students who come from all parts of the State to participate in the annual debating contest. Clad in their new spring finery they present a gay and colorful cross-section of life in the State. Regardless of size, every accredited high school has an opportunity to compete for the Aycock Cup. Chapel Hill becomes debate conscious. The girls and their chaperones are entertained in the homes of the village while the boys share rooms with University men students in the dormitories and fraternity houses.

This assemblage marks the final episode in a statewide contest. Each local high school desiring to compete organizes a team for both the negative and affirmative side of the issue to be debated. All schools are then grouped in triangles, and the first elimination debates are held throughout the State. Each school whose negative and affirmative teams win in the triangular debating contests becomes eligible to enter the finals at Chapel Hill.

Upon arrival as guests at the University, further eliminations are held. On the last night, the best negative team meets the best affirmative team in the final debate which takes place before a large audience in Memorial Hall, the highly coveted Aycock Cup going to the school having the winning team.

This activity had its beginning in 1912 when the Dialectic and Philanthropic Literary Societies sponsored the organization of the North Carolina High School Debating Union. Their purpose was to awaken an interest in the discussion of important state, national, and international questions. Their funds proved insufficient to carry the project through so they appealed to the University for financial support. This was generously granted

through the Bureau of Extension. The division of public discussion and debate assumed the responsibility of compiling a handbook to be used by the participants, and of making the preliminary arrangements. The first contest was held in 1913. Ninety schools debated the pros and cons of "Woman Suffrage." It is significant that the winning team came from Pleasant Garden, a farm-life school in Guilford County, which defeated the Durham High School in the final debate.

Each year, for many years, the number of schools participating increased. The cherished Aycock Cup has passed from Manteo to Murphy in its journey over the State, proving beyond question that a boy or girl from the village or rural district, if given an opportunity, can attain the same heights as one dwelling in an urban community.

The Head of the Bureau of High School Relations now handles all details connected with these annual debates. He compiles and publishes the Debate Handbook and serves as Executive Secretary of the High School Debating Union.

Shortly after the first statewide debate took place a request came for the same sort of organization in the field of high school athletics. A group of school superintendents and principals met with the University's head football coach. The foundation was laid for what later became the State High School Athletic Association, with the Head of the Bureau of High School Relations as its executive secretary. The purpose was to promote good sportsmanship through athletic competition in football, basketball, baseball, track, and other sports for the small village and consolidated school as well as for the large city school. All records and schedules were handled by the Extension office. State championship games were played on the University campus and attracted hundreds of supporters of the opposing teams.

Many changes have been made in the organization and in the regulations governing the contests. A member of the Extension

Division staff continues to serve as the executive secretary. The annual championship games are exciting events attended by thousands of people from all parts of the State. In recent years, due to wartime restrictions on travel, the championship games have been played away from Chapel Hill.

Academic contests for high school students were first held in 1925, in the subject of Latin. The following year saw the beginning of contests in French, Spanish, and Mathematics. In 1938 one was begun in Physics, and still later a contest in History was added. Each contest is organized with the cooperation of the University academic department concerned. All of these contests are held in the spring of the year.

The Extension Division publishes a bulletin early in the school year announcing the academic contests. As the date for each contest arrives, sealed envelopes containing the examinations are sent to all participating schools. At the appointed hour pupils all over the state are administered the same examination by the principal or teacher in charge. The papers are graded by the local teacher, who sends the three best to the University. Here they are graded by a faculty member representing the cooperating department. Public announcements are made of the schools whose students wins first, second or third places.

Drama

Perhaps no other Extension activity has touched closely so many people as that of the work of the Bureau of Community Drama. It has been the means of getting people to work creatively together, to play together, and to appreciate the work of others. Reaching into the most remote communities of the State it has found there the talent and material for the creation of lasting bits of drama which will help preserve for the State its rich folklore.

The history of the development of this work under the inspired leadership of "Proff" Koch is ably told in *Pioneering a People's Theatre,** by Kai Heiberg-Jurgensen, under the title "Drama in Extension." Therefore this article will review only briefly the work as carried on at the present time.

The staff consists of the Head of the Department of Dramatic Art, who serves as Head of the Bureau, a secretary, and clerical assistants who fluctuate in number as the busy or slack seasons come and go. The Secretary of the Bureau also serves as Business Manager of the Carolina Playmakers.

At times the office runs with a degree of routine that belies the many-sided program being followed. But at other periods the rush and bustle bespeak the parade of events.

The purpose of the Bureau is "to promote and encourage dramatic art in the schools, colleges, and communities of North Carolina; to meet the need for a genuinely constructive recreation; to cooperate in the production of plays, pageants, and festivals of real worth, and to stimulate interest in the writing of native drama."

The machinery for attaining these aims includes advice in the selection of plays, consultant service in playwriting, play production, and technical problems involved, the writing of communal plays and pageants and the direction of their production, a package library service, a lecture service, extension courses for credit in play production, and the administration of the Carolina Dramatic Association.

The first of these activities runs on a fairly even keel through the year. The daily mail brings varied requests from all types of groups. Small schools needing help in the selection of the senior class play get the same personal consideration as the highly organized play production groups wanting aid in technical

* A Sesquicentennial publication, pp. 54-62

problems. Reference material for historical background or on all subjects relating to stagecraft and problems of production are sent in package libraries upon request. The Bureau Secretary serves as a booking agent and fills requests for lectures by scheduling staff members from the Dramatic Art Department. Requests for further training in the field of dramatic art are met by the organization of extension classes in play production. In cooperation with the Dramatic Art Department instructors are sent into the State and local leaders are given the opportunity to improve their talents while still "on the job." So successfully have these activities encouraged dramatic art in the schools, colleges, and communities of North Carolina that the work of the Carolina Dramatic Association involves a year-round program culminating in the Annual Dramatic Festival.

The cooperation of the Extension Division with this state organization is a fine example of the way the Univeristy serves the people throughout the State. When, in 1923, the school and community drama groups felt the need of an organization to foster their aims, they looked to the University for leadership, and the Carolina Dramatic Association was formed. Leadership was provided through the appointment of the Bureau Secretary as the Executive Secretary of the Association. The University assumed responsibility for salary, office space, and clerical help, thus giving financial assistance as well as professional guidance. Each year the Association sponsors contests in playwriting, play production, costume design, makeup, and originality of set design. Little theater groups and school units all over the State participate. Hundreds of plays are produced before local audiences, totaling thousands each year. Local groups hold playwriting contests and submit the best to the Bureau for selection and production in the State Drama Tournament.

As the time approaches for the Annual Dramatic Festival, which includes the final productions in the State Tournament, the office of the Secretary becomes a clearing house for details, and all available personnel is pressed into service. Each day telegrams arrive requiring changes in the program. Hourly the number of participants change, and rooms are either engaged or cancelled. Requests for certain types of stage equipment keep the stage manager busy lining up something new, in order that he may be ready when the players arrive. Each person has his responsibility, but the atmosphere of a "first night" covers all routine jobs with glamor and excitement. After judges have been secured, stage requirements met, rooming accommodations arranged, original plays selected for production, the programs printed, tickets placed on sale—the festival opens.

Each year they come in ever increasing numbers, bringing their best productions for presentation on the stage of The Playmakers Theatre. The enthusiast can satisfy his cravings. For three days the plays go on—comedy, tragedy, fantasy, folk plays, and sophisticated drama, plays written by professionals and by youthful amateurs. Each has its place in the parade of creative art and each is awarded a place according to its merit. The areas around the Theatre swarm with contestants in their costumes and make-up, giving the very campus an air of make-believe.

While the visiting groups are here, the Directors meet together for a "Directors Conference" to plan for future co-operation and expansion of the program.

Interest reaches its peak, when, on the last night of the Festival, the announcement of awards is made. It is a surprising and heart-warming experience to remember a play that has stirred you deeply with its understanding of human relationships, and then see the author, a young and wholesome youth,

go forward to receive his award. Creative talent is being discovered and nurtured by the Carolina Dramatic Association. The Extension Division, through the Bureau of Community Drama, is proud of its part in this cultural activity.

When the Extension Division established its radio studio another opportunity for the extension of dramatic art was provided. Through the cooperation of the two departments, "The Carolina Playmakers of the Air" became regular broadcasters. Programs thus provided were carried over a national network.

These activities carried on by the Extension Division do not give a complete picture of all that is done by way of extending Dramatic Art beyond the confines of the University. No true picture could be obtained without mentioning what is done by the Dramatic Art Department itself. Chief among such activities is the annual Playmakers Tour. For many years the Carolina Playmakers have taken their productions over the State, showing what they are accomplishing in writing and production. These demonstrations help many local groups see the practical solution of technical problems. On several occasions these tours have covered a much wider territory. The Playmakers have appeared in cities and towns along the Atlantic seaboard and as far west as Texas. The most extensive tour was made in 1941 when "The House of Connolly" was presented on a Redpath circuit.

English

The Extension Division in cooperation with the University Department of English has developed a unique service for the English teachers of the State. With a faculty member of the English Department serving as Head of the Bureau, much help is given English teachers, both individually and as a group, throughout the year.

Working with the Department of English Teachers of the North Carolina Education Association, the Bureau Head has done much to bring about a renaissance among the English teachers of the State. Serving as the Executive Secretary of their Central Committee, his office has become the clearing house of source material and the fountainhead of inspiration as well as the workshop for planning, organizing and supervising committee work carried on by its members. The group has adopted the shorter title of "North Carolina English Teachers," and with much professional pride they are working on pertinent problems.

The work of the organization is carried on by the following committees: Committee on Professional Standards, with its sub-committees on Pre-Service Training and In-Service Training; Curriculum Committee; Committee on Teaching Load; Committee on Textbooks and Materials; and Committee on Research. The work of all committees is coordinated by an executive board called the Central Committee. It is through the Executive Secretary of this last Committee that the Extension Division provides its services.

A need was felt for a publication which would serve as a regular medium of communication among teachers of English. Such a publication appeared in April, 1943. It is a small leaflet, now published quarterly, which carries news of the work being done by various committees, specimens units of work, suggested book lists, questions for help, and general information about the organization and its members. At present the publication is sent to about 1200 teachers of English. Editorial work and details of printing are handled by the office of the Bureau of English Extension.

Another means of attacking their problems has been through the "High School English Institute." This institute, which is held for a three or four-week period, makes it possible for those

in attendance to earn a maximum of 4½ semester hours of University credit. Under the leadership of the Head of the Bureau of English Extension, a program of study is prepared and executed which provides an opportunity to experience improved teaching techniques, evaluate materials and procedures, and receive help on specific individual problems. These institutes have attracted members from all sections of North Carolina and from eight other states.

The North Carolina English Teachers are also justly proud of their contribution to the *Language Arts Bulletin*, published by the State Department of Public Instruction. Stimulated by the results of the English Institute in 1943, they collected material suitable for curriculum improvement in grades nine through twelve. Units of study submitted by individual teachers were compiled for publication by the editorial committee. Interest shown in this activity was highly satisfactory. Many excellent units were received which lack of space prohibited using. In 1945 this new bulletin was published, but was in no way considered final.

The Curriculum Committee will discuss and revise units already included in the *Bulletin* with the view to improvement. Such revision, to be carried on by the Curriculum Committee, will be issued by the State Department in mimeographed form, thus providing continuous clarification and new ideas. In this way the teachers of English take the leadership in curriculum development based upon the needs of the time.

The Executive Secretary has aided in reviving district meetings and in the reorganization of local groups. A course in "The Teaching of High School English" is offered by correspondence so that in-service training may be continued.

Such cooperation between the English Teachers and the Extension Division is typical of the way in which the University supplies professional leadership to raise standards in the public schools.

Lectures and Lecture Courses

From Battle's *History of the University* we learn that as early as 1880 the President and many faculty members made educational addresses throughout the State. Ever since that time, schools and community organizations have looked to the University for speakers on a wide variety of subjects.

In 1913-1914, the newly created Bureau of Extension increased this service to the State by organizing a lecture division. Each year a bulletin was published giving the names of available speakers and their topics. Many of these were travel talks illustrated by the use of stereoptican slides. Some years as many as 150 subjects were listed. Members of the faculty were most generous in giving lectures in all parts of the State. No fee was paid the lecturer but his expenses were met by the group issuing the invitation. During this time alumni of the University were particularly active in organizing lectures and lecture series, thus bringing to their communities men who had inspired them during their college days.

In 1921 the Bureau of Extension became a Division and the Lecture Division became the Bureau of Lectures and Short Courses. The change in name did not change its purpose, and we find the following announcement in Vol. I, No. 1 of *The University of North Carolina Extension Bulletin*: "Lectures: Popular or technical lectures, individual or in series for clubs and community organizations. Addresses for commencement or other special occasions. Write for lecture bulletin." More and more schools and colleges used this lecture service for securing commencement speakers. It is a tribute to the value of the service when in the spring of the year schools start closing, all available speakers are engaged.

Some faculty members have created a demand for their services as lecturers to such an extent that it is necessary to charge a nominal fee. Others still give generously of their

time carrying the spirit of the University to the people of the State. Booking arrangements are made through the Extension Division, and while complete records are not available it may be conservatively estimated that the average yearly attendance at these lectures is from twenty to thirty thousand.

Music

The Bureau of Community Music, organized in 1921 was an outgrowth of numerous requests for help that came from all parts of the State. Originally the requests were almost entirely for aid in the holding of "community sings." Filling these requests started a chain of events that has carried music to many local communities and has brought people from the communities to the campus for special assistance and training.

Instructors going into a town to help with the "sing" charged no fee for their services, but the expenses incurred were borne by the group making the request. Impetus thus gained was usually carried over into the formation of a community chorus under the guidance of University leadership. Interest in music spread, and all types of civic groups made use of the lecture and demonstration service offered through the Bureau.

Public schools were urged by community leaders to offer music courses. Few teachers were prepared to handle the subject. A cooperative arrangement was worked out with the Music Department and the Department of Education whereby a full-time instructor was employed and sent into the field by the Extension Division. She organized and taught classes in public school music throughout the State. Teachers were allowed credit for the courses and many communities were helped in meeting their needs for this type of instruction.

Closely following this activity came a statewide interest in high school orchestras and bands. Again the University through the Extension Division was able to help. Since 1935 boys and

girls of high school age have been coming to the campus for a six-weeks course in music each summer. Regular classes are held in music theory, appreciation, and chamber music. The Band and Orchestra rehearse daily, and sectional rehearsals are held in woodwind, brass, and string ensembles. Each student receives one private lesson weekly. By special arrangement with the State Department of Public Instruction, one unit of music credit is granted for the successful completion of the course and this is recognized by all high schools in the State.

The Bureau has maintained an advisory service. Members of the faculty of the Music Department give freely of their time to the consideration of the music needs of local communities. They are consulted regarding the planning of programs, the purchase of instruments, the employment of teachers, and many other problems arising in the field of music.

A number of piano, violin, voice and organ recitals have been arranged upon request. University responsibilities and travel limitations have, however, greatly limited the area which may be served in this way. With the coming of radio, the remotest corner of the State can now enjoy such concerts. Through regularly scheduled broadcasts the Music Department now offers planned programs whereby interested listeners may enjoy the equivalent of a music course. Instructions to listeners are provided through mimeographed material sent out in advance. The success of one such series has created a demand for other programs.

The Music Department cooperates closely with all other departments in the use of radio and plays an important part in providing continuity for many broadcasts.

The University Glee Clubs make annual trips into the State and thus extend the work of the Department. The large audiences that attend these concerts are indicative of an increasing interest in good music in North Carolina.

Public Forums

Public discussion has been a major concern of University Extension since its beginning in 1912. Believing that the people of the State should discuss public affairs intelligently, every effort has been made to stimulate interest in current topics and to supply material for discussion groups. The University Library has cooperated most generously in the preparation of bibliographies and in mailing package libraries. Adult groups have maintained a steady interest. In 1940 public discussion in North Carolina received great impetus through assistance given by the United States Office of Education.

To help people help themselves in understanding rapidly changing world events, the United States Office of Education established a program of Public Forums. The University was selected as the North Carolina institution to carry out this program and the Extension Division became the administrative agency. The purpose was, "to stimulate study and discussion of public affairs as a means of extending civic knowledge and of strengthening democracy."

The Division received financial aid from the U. S. Office of Education and the close cooperation of the State Department of Public Instruction. The office of the Associate Director became the State Forum Office and he became the Director of Forums. He travelled extensively throughout the State to stimulate interest in adult civic education and to organize forum activities in the communities.

The results were satisfactory, both in the extent and in the spirit of the forums. One hundred and forty-three public forums were held with an attendance of 26,442, as follows: 84 community civic forums, 22 demonstration forums, and 37 radio forums. In addition to the forums as such, 42 meetings of civic clubs, parent-teacher associations, local, district, and state

education associations heard addresses on the forum and adult civic education by the State Forum Director. Approximately 90 local conferences were held between the Director and community committees and councils.

Radio forums were carried regularly as a part of the University's radio service over the facilities of six stations.

The Director of Forums compiled a Forum Directory listing the names of 98 leaders and 336 separate topics covering a wide range of public affairs. The directory was constantly extended by the addition of both names and subjects for discussion.

All of this work was made more effective by the Information Center established in the University Library. Here, all the latest publications on current topics were made available. Forum leaders throughout the State soon learned to depend upon this Center for up-to-the-minute material on all subjects.

The program was temporarily interrupted by the loss of personnel when many of the local leaders joined the armed forces. Problems of reconversion and world peace now make the need for free discussion a necessity to the maintenance of our democracy.

Publications

From the time the Bureau of Extension was first created, and committed to the ideal of sharing the information accumulated at the University, with the people of the State, the distribution of printed material has been a factor of prime importance. Through the years the form and emphasis of such printed material have changed to meet the needs of the times.

Only one publication has retained its original purpose and format. *The News Letter* is today the same five column clipsheet it started out to be in 1914. Under the leadership of Professor E. C. Branson, head of the Department of Rural Eco-

nomics and Sociology, the country life studies of North Carolina were begun. These studies accumulated quantities of data applicable to the problems of North Carolinians throughout the State. In order to make these facts available to all the people, the material was carefully digested and published in *The News Letter*. Starting November 17, 1914 with a mailing list of 3,500 its circulation has reached as high as 20,000 copies per issue. Professor S. H. Hobbs has carried on the late Professor Branson's editorship. He continues to pack *The News Letter* with social and economic facts relative to life in the State. Respect for this publication is reflected in the fact that editorial comment is frequently based on the information it contains, so that the results of research are given state-wide publicity.

As work of the Bureau of Extension progressed, new channels were needed to inform the people of the State concerning available services and to distribute requested information. The avenue for such publication was already open in *The University of North Carolina Record*. The Record was published by the University eight times a year. The Bureau of Extension was permitted to use issues of this publication for its own purpose. Beginning in 1913, the Bureau started the *Extension Series*, which ran for eight years as publications of *The Record*. Forty-one bulletins were published in this manner. A short listing of selected titles will indicate the variety of groups served:

"A Library for Teachers"
"Correspondence Instruction"
"Collective Bargaining"—Debate Handbook
"The North Carolina Club Yearbook"
"The Good Roads Institute."

In 1920 when the Bureau of Extension was reorganized to become the University Extension Division, many other changes occurred, among which was the merging of *The Extension Series* with *The Extension Leaflets* into a new publication

which is now known as *The University of North Carolina Extension Bulletin.*

The *Bulletin* carries the imprint of the University of North Carolina Press and is entered as second-class matter. The first seven volumes of the *Bulletin* contained fourteen issues, but this has gradually been reduced to six. Until 1934, six issues were annually assigned to the Extension Library to be used for the publication of outlines for individual and group study. This series is now published by the Library Extension Department of the University Library under the name *The University of North Carolina Library Extension Publication.*

The purpose of the *Bulletin* has always been the same. It is the media by which the Division keeps the public informed of available services and is also the means of publishing requested material. In recent years, the following titles have appeared:

"University Lectures" (Announcement of Lecture Bureau Services)
"The Rural Playground," by H. D. Meyer
"Relativity—A Romance of Sciences," by Archibald Henderson
"Children of Old Carolina," An Historical Pageant, by Ethel T. Rockwell
"A Handbook for N. C. Parent-Teacher Associations"
"Debate Handbook"

A pattern of publication has gradually been developed. Each year an issue is devoted to debating, science, drama, economic and social studies, and announcements. As emergencies have arisen and public interests varied, the pattern has changed; but its purpose, service to the people, has remained constant.

The Extension Leaflet came into being in 1915-1916 along with a small publication known as *Extension Bureau Circulars.* The *Leaflet* was small, as its name would indicate, and served to announce courses as the first three titles show:

"Courses with University Credit"
"Courses for Teachers"
"Courses for Workers"

The following year brought World War I and the *Leaflet* assumed a new role. It became the media for circulating war information and facts concerning national problems. The 1918-1919 titles are startlingly similar to those appearing during World War II:

"Why Are We at War With Germany?"
"What to Read Concerning the Great War"
"Will You Keep the Freedom Our Soldiers Win?"
"America and Her Allies"

The *Leaflet* served well through the war years and the readjustment period, but by 1921 it had fulfilled its purpose and was wisely merged with the *Record*.

The *Extension Bureau Circulars* which came into being the same year as the *Leaflet* are still in existence, although they too have undergone many changes. The first series has such titles as: "Our Country Church Problems," "Our Carolina Highlanders," and "Wealth, Welfare, and Willingness in North Carolina," which would indicate they were first issued to discuss community problems of our rural districts. In 1921 the word Bureau was dropped, and the name became *Extension Circular*. It was then used to announce activities of the Division such as athletic contests and coaching schools. In 1926 the name was changed again. This time it was called *The University of North Carolina Extension News* but has been most frequently referred to as simply *Extension News*. It is a six page folder announcing services of the Division. In this respect it differs from the bulletin announcements in that it is more specific, giving details of service to a limited group in a special field. The following titles illustrate this point:

"Training for Parenthood"
"Economical Plans for College and Adult Education"
(of special interest to high school graduates)
"The 15th Annual Coaching School"
"Outlines of Study and Directed Reading" (Women's Clubs)

"Statewide Program of Adult Education"
"Summer School Institutes"

During the period between December 1923 and June 1926, the School of Commerce, through the Bureau of Commercial and Industrial Relations, sponsored a publication known as *North Carolina Commerce and Industry*. Each issue carried statistical studies with comparisons and interpretations concerning the commercial progress of the State.

A small leaflet called *The English Teacher* is published quarterly. It first appeared in April 1943 and serves as a medium of communication among teachers of English.

In like manner, *The Bulletin of the North Carolina Council for the Social Studies* is published by the Division in cooperation with the social science teachers of the State.

New trends in educational thinking lead to new activities in extension, and they in turn create a need for new publications. The Division will continue, through its publications, in so far as its resources will permit, to make available the results of research, study, and laboratory experiments to all the people of the State.

Radio

Long before the University established its own radio studio, regular programs were broadcast through the courtesy of radio stations in Durham and Raleigh. Through the cooperation of these stations two plans for broadcasting were made possible, depending upon the type of program to be presented. Lecturers, round table speakers, and small entertainment groups went to the studio which was to broadcast the program. Concerts, or public lectures given by nationally known speakers, on the campus were picked up by a direct line from the hall in which they were given and broadcast by the cooperating station.

These two plans were appreciated for they enabled the University to share its resources with the people of the State. The Music Department presented a series of Sunday afternoon concerts. The Department of Dramatic Art broadcast one act plays, and several lecture courses were given in the fields of history, commerce, and political science. Courses were given in French and Spanish. Such arrangements also made possible the broadcasting of special events such as The Orange County Music Festival, and the Town Hall of the Air.

Problems of rehearsals, transportation and administration were numerous. The next step was to acquire a studio which would permit small groups to have their programs carried by direct wire as concerts and public gatherings are carried. The studio would also permit training in many technical problems and provide suitable rehearsal space.

The University's first adventure in radio broadcasting from its own studio took place in 1940. In May of that year, under the direction of the Associate Director of the Extension Division, the Radio Studio in Caldwell Hall was officially dedicated. It was doomed to a short existence. By 1942, due to lack of space, the equipment had been put into packing boxes for "the duration." However, in that short period Radio had become an important factor in extending the resources of the University to the people of the State.

In his report, the Head of the Radio Department made this statement: "The primary aim of all University radio programs is to render educational service to the people of the State; a secondary objective is to provide practical training in radio for faculty members and students. An indirect outcome, not set up as an objective at all, is a more intimate relationship between the University and the people of North Carolina. The radio literally makes the boundaries of the University campus coterminus with the boundaries of the State."

The official staff of the Radio Department, which developed gradually during the first year of broadcasting, reached the total of 42 persons serving variously as directors of programs, announcers, technicians, writers, secretaries, and production assistants. A few of these people were part-time employes, but most of them were faculty members and students whose services were voluntary. More than 300 faculty members and students of the University participated in the radio broadcasts.

Programs were produced by representatives of several university departments and students organizations. Programs of the following types were broadcast: glee club, band and symphony orchestra concerts; music recitals and ensembles; programs depicting the work of various University departments and organizations; plays; lessons in North Carolina History; Carolina Political Union forums; special events at the University, such as commencement and student-faculty day; book reviews; science talks; philosophy round tables; weekly news summaries; "Our American Neighbors," programs to describe life in the other American nations; journalistic interviews; lectures and addresses on a variety of subjects.

The estimated weekly listening audience for the University radio programs was a minimum of half a million people. The reaching of so large a number of persons with the educational services of the University was a result of a unique plan of cooperation between the University and the commercial stations in the State, an arrangement described by the Chairman of the Federal Communications Commission as "ideal." The University had the cooperation of the following eleven stations: WDNC Durham; WPTF Raleigh; WRAL Raleigh; WBIG Greensboro; WGTM Wilson; WFTC Kinston; WSTP Salisbury; WSJS Winston-Salem; WAIR Winston-Salem; WSOC Charlotte; the affiliated Mutual station at Greenville, South Carolina.

Under the direction of Mr. Earl Wynn, the Playmakers of the Air broadcast a series of six original plays over the nation wide facilities of the Mutual Broadcasting System, reaching an audience of many millions each week.

New quarters have now been acquired and a modest beginning made for the re-establishment of radio at the University, with plans well underway for a Frequency Modulation educational station and other new developments of this media of communication.

Recreation

Through the years the University Extension Division has recognized the place of recreation in community life and has made significant contributions to the promotion of recreation not only in North Carolina but throughout the South. The Bureau of Recreation, an integral part of the Extension Division, was established in 1923 and has been rendering service since that time. It was established in cooperation with the Sociology Department under the leadership of Professor Harold D. Meyer.

The services which this Bureau has rendered may be briefly described as follows:

Relation to Communities. Here the Bureau has functioned by direct services to communities in a consultative and advisory capacity. Meetings have been held with hundreds of community groups representing public officials, private agencies and commercial organizations. Recreation departments have been established, programs have been set up, areas and facilities designed and located, problems of leadership personnel worked out, and public relations promoted.

Bulletins and Other Publications. Through the years the Bureau has published many bulletins relating to recreation and

has sent out literally thousands of leaflets, rental libraries and other information relating to recreation activities.

Extension Courses. Recognizing the need for trained recreation leadership, both on the professional and volunteer levels, extension courses in recreation have been established and taught in many communities throughout the State. Here have gathered together workers for refresher courses, in-service training, and general training in the field. This is one illustration of the University reaching out to the people in practical training opportunities.

Correspondence Instruction. As another aid in the training program, correspondence courses are available in the field of recreation and hundreds of leaders have taken the courses as an effective means to better leadership and a better understanding of recreational techniques. Hundreds of teachers have taken the courses enriching the recreational program of the schools.

Surveys and Studies. Many surveys and studies have been made of local communities, districts and counties. These surveys and studies have aided communities in understanding the recreational picture, planning for progressive growth, bringing about better coordination of existing services, and establishing a factual basis for future planning. Emphasis has been given to administration and organization, program building, areas and facilities, finances, and leadership.

Institutes, Conferences, and Workshops. In the span of years the Bureau has held hundreds of recreation institutes, conferences, and workshops on and off the campus. These meetings have been of all types—professional groups, volunteer workers, specific programs for industrial recreation leaders, recreation in rural areas, recreation for church workers, and the like.

Addresses. The Bureau has served many national, state, and local organizations in making talks to members. Parent-

Teacher Associations, units of the Federation of Women's Clubs, educational groups, home and farm demonstration meetings, civic groups of all types, fraternal orders and religious organizations are among some of the classifications served.

Youth Services. With a continuous interest in youth, the Bureau has worked very closely with numerous national, state, and local youth groups in furthering the work of these organizations. The Boy Scouts of America, Camp Fire Girls, Girl Scouts, Boys' Clubs of America, 4-H Clubs, young peoples' religious groups, student government organizations, YMCA, YWCA and many others have received assistance and service in many ways.

In addition to these services there has been constant contact with individuals and organizations through correspondence. Every effort is made within the limits of time and facilities to render effective service to the State and the South in the building of better recreational opportunities for the masses of the people.

Through the war period the Bureau acted as Coordinator for Recreation in the Office of Civilian Defense and served many military units located in the State.

The North Carolina Recreation Commission. The uses of, the benefits from, and the needs for recreation are constantly on the increase. Recognizing this fact, the leadership of the University Extension Division has taken an active part in the organization of the North Carolina Recreation Commission, which was established by the General Assembly of North Carolina in 1945, the first of its kind in the United States. The Chief of the Bureau is acting as Director of the Commission and the Director of the University Extension Division is serving as Chairman of the Commission's Advisory Committee.

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COOPERATION WITH STATE, REGIONAL, AND NATIONAL ORGANIZATIONS

COOPERATION WITH STATE, REGIONAL AND NATIONAL ORGANIZATIONS

The Extension Division, with its broad interpretation of the term "Adult Education," logically represents the University in its off-campus contacts with individuals and organized groups or agencies. Wherever the need for educational services presents itself, an effect is made to render assistance.

Frequently the University, through the Extension Division, takes the initiative in offering services to organized groups. At other times an organization may approach the University seeking help with a definite problem, or, the University may solicit the cooperation of an organization in the development of a program.

The willingness to cooperate in the development of constructive programs and to help in carrying such programs to a successful conclusion has been of mutual benefit. The University has established its reputation for leadership and impartiality, denying to none the right to profit by the advantages it has to offer.

Taking its place as one of the leading universities of the nation, such working relationships are not limited to the State, but are extended to regional and national organizations.

Probably the simplest examples of such cooperation are found in the conferences at which the University serves only as the host institution. The University with its atmosphere of culture and the campus with its natural beauty make Chapel Hill a desirable meeting place for groups wishing to combine comfort, beauty and inspiration. As a result, the University is annually asked to be host to many organizations wishing to use the facilities of the University for their state, regional or national meetings. The Extension Division, acting as representative for the University, becomes responsible for all local details of housing, feeding and transportation. Interested departments

are invited to participate, but assume little or no responsibility. Frequently the only connection with the University, other than the services rendered by the Extension Division, is the greeting of welcome extended by some member of the administration.

Such visitors vary from year to year. During the War it was necssary to limit the number in attendance. Housing difficulties now impose restrictions. In the past a single national society brought as many as 2800 guests. The Division looks forward to the time when such activities may be resumed without limitations.

The following list, which is by no means complete, serves to show the type of organizations served:

Business and Professional Women's Club Institute
Conference on Public Forums
Convention of the American Chemical Society
Junior Red Cross Workshop
National Academy of Science
North Carolina Photographers Association
Post Office Clerks and Letter Carriers' Convention
Southern Training Institute T.W.U.A.
Summer Institute of the North Carolina Federation of Women's Clubs

In contrast to this type of co-operation, which is of short duration and involves little more than meeting physical needs, are the yearly working arrangements which exist between the University and many organized groups. In some instances such co-operation began as early as 1913 and has continued to the present time. Some have been interrupted by national emergencies. Others have only recently been established and are an outgrowth of new trends in extension service.

In explaining such relationships it is impractical to trace the working agreements which have developed in every case.

A few that have continued for many years have been selected as examples. Descriptions of several of these cooperative relationships have been given in Chapters II and IV.

State Organizations

NORTH CAROLINA CONGRESS OF PARENTS AND TEACHERS

The resolutions adopted by the 1946 annual convention of the North Carolina Congress of Parents and Teachers contained the following statement: "Be it resolved, that the North Carolina Congress of Parents and Teachers does extend greetings and felicitations to the University of North Carolina upon the occasion of the celebration of its one hundred and fiftieth anniversary.

"Cognizant of the great place that the University has had in the building of our State and of the tremendous service it has rendered to the culture of North Carolina, the Congress of Parents and Teachers would take this occasion to commend it particularly for the aid and encouragement it has given to the public schools through the education of young men and women as teachers and parents of our youth; through the loan of its faculty as speakers and advisers; through the extension of its material facilities for programs and meetings; and for the recognition and enthusiastic encouragement it has given to all organizations and movements for the education and the development of youth.

"For all this, the North Carolina Congress of Parents and Teachers is duly grateful, and it would pray for the University of North Carolina a continuing future of service and an ever affectionate place in the hearts of the people of the State."

Such a statement of affection and gratitude was not mere form, but was an outgrowth of sincere appreciation for leadership and cooperation which the Congress has continuously re-

ceived from the University, through the Extension Division, for the past twenty-seven years.

Since its beginning in 1919, the Extension Division has been glad to encourage and promote the objectives of the organization. Realizing that the success of the State program depended upon community participation, one of the first contributions made by the Division was the publication "The Parent-Teacher Handbook." This contained step-by-step proceedures for the organization of a local organization of the North Carolina Congress of Parents and Teachers. It was most gratefully received by those who believed in the cause but who had had little or no experience in the PTA activities. It made possible the organization of hundreds of local associations and was a contributing factor to the successful beginnings of the state organization. The popularity of the Handbook continued for several years, necessitating four subsequent editions.

Faculty members became members of standing committees and helped formulate policies and programs. Since the beginning, such names as Graham, Teague, Phillips, Meyer, Groves and Grumman have run through their literature and Institute programs. The Library Extension Service established a special collection of books pertinent to Parent-Teacher work. These are loaned to local associations for their study groups and guidance programs.

One of the first state-wide efforts to foster art in the public schools was sponsored by the Congress of Parents and Teachers. Through local associations children were encouraged to enter a Poster Contest. The Extension Division cooperated by attending to all the details of conducting the contest, furnishing the judges and handling all correspondence.

The growth of the Congress was rapid and by 1928 the need for trained leadership led to the establishment of the annual Parent-Teacher Institute, at Chapel Hill. The Institute is pri-

marily for in-coming officers and the program is so arranged as to provide instruction in the general program of Parent-Teacher cooperation, the objectives of the organization, and the individual responsibility of each officer. The Director of Extension was made the director of the first Institute and continued to carry that responsibility until 1942 when crowded conditions on the campus made it necessary to move the Institute to the Woman's College at Greensboro. The University, through its Director of Extension at that institution, continues to provide the same leadership.

In 1934 the Congress decided that the needs of local associations could best be met by means of a Field Representative, who would travel over the State giving personalized consideration to local problems. The Director of Extension was appointed chairman of a committee to work out the details of such a plan. A woman who had had many years of Parent-Teacher experience was employed for the position. The Extension office circularized the fact that her services were available and received requests. It made out her schedule and arranged her transportation. The work of the Field Representative changed as associations matured. At present one feature which is indicative of the prestige being gained by the organization is the cooperation with the colleges. This includes visitation work at the summer schools and at classes in education at teacher-training institutions. Prospective teachers are thus introduced to Parent-Teacher Association principles and objectives.

The work of the Field Representative is now handled in the office of an Executive Secretary, which is further indication of the growth of the organization.

A History of the North Carolina Congress of Parents and Teachers, Volume I, covering the period 1919-1944, gives a comprehensive review of the activities of the organization, and traces the contributions made to it by the Extension Division.

NORTH CAROLINA STATE BOARD OF HEALTH

Cooperative relationships between the State Board of Health and the Extension Division were established as early as 1916. In that year the first post-graduate medical course was organized.* Since that time the Extension Division has continuously offered its services for the promotion of public health in the State.

Annual summer school courses have been provided for dentists engaged in public health service to broaden their understanding of child psychology and school problems. The Bureau of Community Drama has cooperated with the Division of Oral Hygiene in sponsoring puppet shows for the teaching of the proper care of the teeth. An automobile equipped with the necessary stage equipment has toured the State with this "visual aid" to health education.

For several summers, the School-Health Coordinating Service, which represents both the State Board of Health and the State Department of Public Instruction has conducted a Child Health Conference for teachers at Chapel Hill. The Extension Division has given assistance to this program, particularly in the field of Special Education, *i.e.*, the teaching of the hard-of-hearing and the physically handicapped groups. A laboratory school is operated as part of the six weeks conference.

At the request of the Coordinating Service, the Extension Division has offered credit courses on "The Problems of the Mal-adjusted Child" at many centers throughout the State.

As the campaign for public health becomes recognized as everyman's problem, the opportunities to serve are expanded. Plans for further classes and public instruction in the conservation of health are now being formulated. The Extension Division solicits the cooperation of all University departments

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* See Post-Graduate Medical and Dental Courses.

which can assist in this work and offers this service to the State Board of Health.

NORTH CAROLINA STATE DEPARTMENT OF PUBLIC INSTRUCTION

The first extension activity, recorded as such, was developed in cooperation with the State Department of Public Instruction. In 1913 Dr. Louis R. Wilson offered the resources of the University library to the people of the State. Professor Nathan W. Walker, who, at that time, was State Inspector of High Schools, took advantage of this offer to supplement the reading of high school pupils. Since that time extension service has been adjusted and expanded to meet the changing needs of the public schools as interpreted by the State Department of Public Instruction.

The work carried on may be classified in three distinct types: courses given for credit to meet the requirements of the state program of teacher certification; institutes, conferences and workshops held for professional study and improvement; and programs conducted for school pupils to supplement opportunities offered by the local schools.

The Division of Certification establishes specific requirements which all teachers must meet before employment or advancement is secured. The correspondence courses and extension class instruction offered by the Extension Division in cooperation with the Education Department, make it possible for teachers to continue their professional growth while in service. Courses carrying University credit, with certain restrictions, are accepted by the State Department and may be applied toward raising or renewing teachers' certificates. The Extension Division maintains a counseling service for teachers who desire help in the selection of courses. The head of the Division of Certification and the Director of the Extension Division work

closely together in order that the needs of teachers may be met. These courses offered through Extension at times and places, where most needed, have contributed greatly to the high teacher-training index prevailing in the State today. As standards have been raised, extension teaching service has shifted its emphasis from the undergraduate to the graduate level of instruction.

Institutes, conferences and workshops for teachers and school officials have long been utilized as techniques for improving the quality of teaching and school administration. To describe all of these cooperative adventures would be repetitions but the following will serve to illustrate the type of training offered:

The Division of Instructional Service of the State Department of Public Instruction organized a short summer course to stimulate interest and to promote active participation in art in the public schools. The Extension Division worked with the State Department in obtaining suitable lecturers and teachers. The course was given at Blue Ridge, N. C., and a representative of the Extension Division served as coordinator, making schedules and attending to administrative details.

The State Supervisor of School Libraries held a conference for school librarians at Chapel Hill. The Extension Division handled the necessary local arrangements for accommodating such a visiting group.

In the depression years when the Federal Emergency Relief Administration was organized, all state departments of education were asked to hold training courses for leaders and teachers in various fields of adult education. The Extension Division held several of these courses, including: the training course for State Supervisors of Adult Elementary Education, the training course for Supervisors of Worker's Education, and the training course for Recreation Workers. These were followed

by conferences and institutes, held throughout the State under the direction of the Division in cooperation with the F.E.R.A. and the State Department.

University Extension programs conducted for school pupils, and designed to supplement opportunities offered by local schools, have steadily increased in range of interest and participation. Recognizing the fact that limited enrollment and financial support curtail many desirable educational experiences, the State Department of Public Instruction has cooperated with University departments and the Extension Division in making a few such opportunities available to the public school students of the State.

The Art Department working with these other agencies has for several years sponsored art contests and art exhibits for both elementary and high school boys and girls. Through this means art instruction has been vitalized in many schools.

At the request of the State Superintendent of Public Instruction the Journalism Department cooperates in sponsoring the North Carolina Scholastic Press Institute. This is an annual event for high schools having their own school papers. It is an effort to evaluate and raise the standards of such publications. Contests in format, editorials, and general content do much to supplement a school's program in English, citizenship, and art, as well as in journalism.

In 1935 the Music Department, in cooperation with the Extension Division, offered the first All State High School Music Course. Boys and girls from all over the State gathered on the University campus for six weeks to study Music Theory, Appreciation and for practice in Band and Orchestra. The State Department cooperated with this venture and approved the course for high school credit.

During the ten-year period this course has been offered, registrations have more than doubled. The stimulus thus given

to hundreds of promising young musicians, and to music appreciation throughout the State can not be over emphasized.

The success of the music course paved the way for the development of a similar course in Dramatic Art. This course also carries high school credit. Dr. J. Henry Highsmith, Head of the Division of Instructional Service of the State Department, serves as consultant.

Regional Organizations

As a result of the reputation which the University of North Carolina has established, requests are frequently received to aid in the promotion of educational projects fostered by regional agencies. The Extension Division is frequently called upon to represent the University in such matters of cooperation.

The Southern Council on International Relations is perhaps the most representative of these regional services and will therefore be described fully. Several others, however, deserve to be mentioned with a notation regarding the type of cooperation given.

Southeastern Association for Adult Education: The Director of the Extension Division was asked by the American Association for Adult Education to assume the leadership in founding the Southeastern Association. He has served as its President and is at present Secretary-Treasurer of the organization. He served as program chairman at its last annual meeting and is a member of the Executive Committee.

Southeastern Folklore Society: The Director of Extension has represented the University on the Executive Board of the Society and has served as its Secretary-Treasurer.

Southeastern Area American Red Cross: The Extension Division has served as Coordinator for the Regional Work Shop for Junior Red Cross Chairmen. It has sponsored two "Training Courses for Teachers of Home Nursing" and several "Training Courses for Swimming Instructors."

THE SOUTHERN COUNCIL ON INTERNATIONAL RELATIONS

The Southern Council on International Relations is a regional agency of the Carnegie Endowment for International Peace and is financed chiefly by means of an annual grant from that organization. The Office of the Coordinator of Inter-American Affairs, and the University of North Carolina have, in recent years, cooperated financially and otherwise with the Council. It is an organization of members from ten southern states established as a coordinating agency to promote adult education and action in international relations.

To carry out these aims, the Council maintains an office which serves as a source of information and help to all local communities interested in a better understanding of world problems. This office receives quantities of literature published by national and international agencies. These materials are mailed to study groups in the ten participating states. The Council, through its director, aids in the organization of local councils, and maintains a guidance service in the planning of programs and community projects. Art exhibitions, open forums, lectures, motion picture showings, and press releases are some of the techniques used to stimulate interest in and to clarify international issues. Whenever there is a sufficient demand for more formalized instruction, extension classes and correspondence courses are provided.

The Council directed the North Carolina Lecture-Institute Program for the Office of the Coordinator of Inter-American Affairs. This program served hundreds of schools, colleges, and communities and brought into the State as speakers such well known authorities on Latin America as Guy B. Inman, Hubert Herring, and John Harvey Furbay.

The magazine, *The South and World Affairs,* is published monthly by the Southern Council. This publication, devoted to "the South's place in the World," carries articles of current

interest written by authorities. The effect of international policies upon the people of this region are frankly discussed. Reading lists which cover both sides of debatable questions are included.

President Graham served as Chairman of the Southern Council on International Relations for several years. Professor Keener C. Frazer, a member of the staff of the Department of Political Science, serves as Secretary and Director. During 1944-1945, the salary of a full-time director was paid jointly by The Carnegie Endowment for International Peace and the Extension Division. Office space and secretarial assistance were also provided by the Division. The Division cooperates with the Council in the distribution of motion picture films, lantern slides, and exhibits. Extension Library Service is made available to individuals and to local council groups.

National Organizations

Most national organizations are dependent upon the cooperation of state and local agencies to carry out their aims, purposes, and programs. Without understanding and participation on the community level, little is accomplished on the national level. In like manner, much is gained by the local agency when its efforts are coordinated with nationwide activities. Through the Extension Division the University is able to participate in the planning of many nationwide movements and have a part in building programs of national importance.

The many groups with which the Extension Division works fall into three classes: first, national organizations and societies; second, federal agencies; and third, endowments and foundations established for research and educational development.

In the first group are such organizations as the National Education Association, the National University Extension As-

sociation, the American Association for Adult Education and many others. By representation on executive boards and planning committees the University contributes to the policy making of each organization and at the same time has the advantage of exchange of thought with the leaders in a given field throughout the nation.

Cooperation with federal agencies provides one of the greatest opportunities the University has to implement the programs of national scope. The United States Office of Education has turned repeatedly to the University for local interpretation and practice of its programs. Public forums sponsored by the Office offer an excellent example of how the University through the Extension Division makes possible the success of such a program.* On the other hand, the assistance given the Inter-American Institute is an illustration of how the United States Office of Education cooperates with a University program. The film service of the U. S. Department of Agriculture and other federal agencies is being channelled in North Carolina through the University's Bureau of Visual Education. The opportunities for mutual benefit coming from such cooperation are many.

The United States Employment Service turned to the University for aid in conducting its system of Merit Examinations. Through the Extension Division the University provided administrative direction, office space and clerical help for this national program which had to be carried out on the state level. Qualifications for employment were determined on three points, application, examination, and personal interview. The Extension Division staff under the supervision of a national representative scored the applications and corrected the examinations. The examining boards which toured the State conduct-

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* See Public Forums.

ing personal interviews were composed of one representative from the national office, one representative from a neutral state and one faculty member from the University. In this case the University was able to contribute materially to the development of a national program of great service to the citizens of the State.

During the depression many national emergency programs came into being. Their efficiency was entirely dependent upon local execution. Many of these programs were of short duration but while they were in action the Extension Division did much to interpret their aims, train their leaders and house their officials.

The State Educational Director of the CCC program was given office space by the Extension Division and for over a year conducted all the educational activities of that organization from the campus. He freely used staff and faculty members for the promotion of the national ideal set up by this agency.

Conferences, short courses, and training programs were provided for the leaders of FERA, WPA, PWA, CCC and FHA. All of these national programs became more effective in the State because of the leadership provided by the University.

National agencies which came into being during the second World War received similar cooperation. These have been discussed in detail in the chapter on University Extension in Wartime.

Many national foundations which are established for the furthering of research, educational opportunities, and international understanding, are also dependent upon local participation for the development of their plans. Funds are provided by a foundation for experiments and studies under the leadership of a recognized educational institution. The Extension Division has been able to participate in such arrangements. At present the Division is serving as the clearing house agency of

a trust fund established by the Filene Good Will Fund, for an experiment in consumer cooperatives and credit unions among the negroes of the State.

The Commonwealth Fund desirous of promoting better understanding between the Americas gives financial assistance to the work of the Inter-American Institute.

The General Education Board, The Laura Spelman Rockefeller Foundation, The Office of the Coordinator of Inter-American Affairs, The Carnegie Foundation and The Rosenwald Fund are among the national agencies with which cooperative programs have been developed.

VI
UNIVERSITY AGENCIES OF ADULT EDUCATION

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The Bureau of Business Services and Research

REX WINSLOW, DIRECTOR

In November, 1945 the University Administration approved the establishment of a Bureau of Business Services and Research as an autonomous unit within the School of Commerce. The primary object of this Bureau is to enlist, coordinate, and extend available resources of the University to businesses and industries of the State.

This extension will take the form of research projects, special training classes, conferences and institutes, on the adult level; and consultant, informative, and publication services. The Extension Division will administer the training program, issue some of the publications, and coordinate the Bureau with other extension work.

Relations are necessarily so close that the operations office of the Bureau has been set up as an integral part of the administrative offices of the Extension Division. The Extension Division was instrumental in establishing the Bureau. It supported the proposal, aided in outlining Bureau functions, provided office equipment and clerical assistance, and absorbed some of the Bureau budget.

The rejuvination of this phase of University extension was stimulated by the mutual benefits flowing to North Carolina business and to the University from the war training program in production management administered by the Extension Division for the U. S. Office of Education. Future opportunities for the University to contribute through extension work to the business prosperity and economic well-being of the State are unlimited.

The Folklore Council

The Folklore Council has been quietly carrying on its work since 1935. Organized to perpetuate and disseminate all phases of folklore it has served as an educational agency in collecting, preserving and interpreting our national heritage of folk culture. The Council has recognized the variety of interest represented in folklore and has embraced the fields of art, English, drama, and music to secure a well balanced program.

The Council had its beginnings in the Institute of Folk Music which was organized in 1931. With the head of the Music Department serving as chairman the Institute developed a three-fold program divided as follows: 1. Research: discovering, collecting, and publishing native folk music; 2. Educational work: (a) teaching traditional songs and dances in schools and communities, (b) organizing county folk festivals and "old time music" conventions, (c) publishing English and American folk songs and folk dances for educational and social use in schools and communities; 3. Creative composition based on folk music.

Lamar Stringfield's well known composition "Cripple Creek" was produced as a result of his work with this project. The North Carolina Symphony Society which is now a thriving independent organization had its beginnings in the Institute of Folk Music, and the Dogwood Festival which brought together the folk arts of drama, handicraft, and music was an early activity of the Institute.

The Dogwood Festival focused attention upon the variety of interests in folklore represented by the members of the advisory board of the Institute. Each rightfully maintained that his interest be given more consideration. As a result the Folklore Council was organized to include all the cultural aspects of folk life and the Institute of Folk Music became a Division of that Council.

Since its organization in 1935 the Director of the Extension

Division has served as the Chairman of the Council. He has also served for four years as secretary and treasurer of the Southeastern Folklore Society and has cooperated with the programs of the National Folk Festival, thus carrying the interest of the University into national fields.

Through its membership the Council has made a number of valuable collections, many of which have been recorded and published.

The Music Department realizing the importance of trained workers in this field offers regular courses in folk music and comparative musicology.

The Institute for Research in Social Science

KATHERINE JOCHER, ASSISTANT DIRECTOR

The Institute for Research in Social Science, organized at the University of North Carolina in 1924, is one of the two permanent Institutes—the other being the Institute of Government—in the University. Following as it did the early beginnings of the Extension Division, the University of North Carolina Press, and particularly, under the leadership of Dr. E. C. Branson, the Department of Rural Social-Economics with its slogan of "Know your State," the Institute, under the able direction of Howard W. Odum and later of Gordon W. Blackwell, with Katharine Jocher as assistant director, followed closely this tradition and pattern of a primary function of a state university—that of serving its state. And moving on from this the Institute added, as another major function, service to the region.

Accordingly, even though primarily a research agency with grants specifically earmarked for research in the social sciences in North Carolina and the South, the Institute has always conceived of its function in a threefold manner. First, it has attempted to encourage and stimulate research in the social sci-

ences at the University of North Carolina and throughout the South, to discover and develop research personnel, and to map out and plan for a program of coordinated and cooperative research in the southern regions, particularly the Southeast. Its second function grew naturally out of the first, namely, to become a training center for research and planning personnel and teachers especially within the region which the Institute primarily serves. In the third place, focusing as it does upon regional research, the Institute acts as a center for cooperating with other agencies in the field in an attempt not only to stimulate more adequate research but to develop procedures and techniques for interpreting this research and making it of more functional value in the State and region.

In addition to its numerous publications, many of which bear the imprint of the University of North Carolina Press, the Institute has from time to time sponsored, promoted, and conducted conferences and institutes in its effort to make available its findings, not only to individuals, but to agencies which might take its facts and figures and build from them a constructive program of social and economic development for the South.

One of the earliest of these was a Work Conference on Optimum Production with Special Reference to Selected Agriculture Commodities in the Southern Region, which was held on April 3, 1933. Morning and evening sessions were held in Alumni Building, the home of the Institute, with a special luncheon meeting at the Carolina Inn. The specific purpose of this conference was "to inquire into the availability of a study and planning project in optimum production as a field for special extended effort and as an approach to the study of planned and controlled regional production." Joining with the Institute in sponsoring the sessions were: The Southern Regional Committee of the Social Science Research Council; The Southern

Regional Study Work Group of the Southern Regional Study, the findings of which were published under the title of *Southern Regions of the United States*, by Howard W. Odum; and the Southern Tax Committee. The members of the Forestry and Research Committees of the Southeastern Council were also invited to attend and participate. Approximately eighty persons attended the sessions, which featured nationally known specialists together with University personnel, as speakers and discussion leaders.

However, it was an Institute on Southern Regional Development and the Social Sciences, held in Alumni Building, June 17-27, 1936, which actually took the first step toward the recently organized program of research interpretation of the Institute for Research in Social Science with John E. Ivey, Jr., as its head (See pp. 163-65). Among the several conditions which led to the decision to hold this Institute and which in large measure determined its nature and work, the following should be recorded:

1. The publication and wide discussion of *Southern Regions of the United States*, by Howard W. Odum, which led some of its sponsors to conclude that further consideration of its findings, a wider use through simplified presentation, and further consideration of actual planning in certain fields of regional economy and culture might be profitably discussed in such a conference.

2. An increasing interest in regionalism and regional planning, not only in the South but throughout the Nation, together with the need for more effective ways and means of utilizing the vast amount of research material which had been gathered by so many agencies.

3. An opportunity for cooperative stock-taking to discover the best uses which could be made of the materials which southern universities and colleges had been gathering and publishing for many years, together with developing extension teaching and research.

4. A consideration of the special conclusions which come from *Southern Regions* with reference to the reconstruction of southern agriculture, in order to bring about a better coordination of research and extension teaching among

the land-grant colleges and between the land-grant colleges and the universities.

5. The timeliness of a review of the whole prospect of regionwide coordination in research and social action, particularly in relation to recent meetings of southern groups.

Between fifty and sixty visiting specialists were in attendance at the conference. In addition, more than two score members of the University of North Carolina faculty took part. The institute was a working conference of university people, having for its purpose a sort of stock-taking to see what the universities, the colleges, and the professors could contribute to actual planning and development; what next steps in coordination of their work should be taken; and what, if any, future coordinating committees should be set up. It was expected that the findings of the institute would be made available later to all interested planning groups and agencies. The institute itself, however, was not a planning conference; first and last, it was a working body seeking testing fields for the use of research data in regional development. In addition to the *Review* and *Summary of Findings*, distributed in mimeographed form, the *Manual for Southern Regions of the United States*, by Lee M. Brooks and others, was largely an outgrowth of this institute.

Another major step in research, planning, and interpretation was achieved through a University Conference on Population Research, Regional Research, the Measurement of Regional Development, which was held April 30-May 4, 1940, with headquarters in the then newly remodeled Alumni Building. Since one of the major themes of the week was that of regional population study, it was peculiarly fortunate that the Population Association of America held its annual meeting at the same time and place, so that joint sessions could be planned. The conference was the result of a felt need, on the one hand, for a sort of stock-taking during the decade 1930-1940, and a

look ahead toward the ten years from 1940 to 1950. Some of its objectives were stated in this light:

1. To explore the extent to which current social and economic inventories might show status and trends of southern regional development at the time of the conference.

2. To indicate to what extent the earlier southern regional study, as represented by *Southern Regions of the United States*, might be brought up to date and utilized as a measure of future trends and development.

3. To re-examine the field and methods of regional research and explore the possibilities of new ways of measuring regional development.

4. To explore more fully the nature and possibilities of the Subregional Laboratory for Social Research and Planning (an area of thirteen contiguous counties, approximating a miniature Piedmont South, with ten counties in North Carolina and three in Virginia, as an exploratory unit in social research and planning).

5. To examine the availability of social science exhibits in regional research and planning as effective illustrative materials. A special feature, therefore, was the exhibition representative of regionalism, both world and national, which had been prepared especially for the conference and which appeared on the walls of the Laboratory-Workshop of the Institute, in which all sessions were held.

6. To explore the extent to which new cooperative efforts in research and planning might be focused upon next steps both within specific laboratories and in the region at large.

7. To feature a unit of the University's Sesquicentennial activities and the remodeling of the Alumni Building as a center for the work of the Institute for Research in Social Science in cooperation with other social sciences and social work.

The membership of the conference necessarily was limited. However, all sessions were open and visiting students were welcome. Approximately one hundred persons attended one or more sessions. Flexibility in the program permitted the discussion of a wide variety of topics such as: southern population and population research; the general structure of southern regional industry; the southern climate and its effects; race and regional culture; attitudes, education, the library, the press, and civic

efforts. There were no resolutions, no findings, and no recommendations, but it was hoped that out of this conference would come continuing exploration and inquiry leading to next steps in social research and planning.

Cooperating with the Institute of World Economics, the Institute sponsored a one-day working conference on Regionalism in World Economics, held on April 21, 1945. The conference was under the joint direction of Professor W. G. Friederick, of North Carolina State College of the University of North Carolina, and Gordon W. Blackwell, Director of the Institute for Research in Social Science. Morning and afternoon sessions were held in the Laboratory-Workshop of the Institute, 403 Alumni Building, with a luncheon conference at the Carolina Inn. Because of transportation restrictions only a limited number of out-of-town guests were invited, but all sessions were open to the general public. The papers and discussions, featuring national and local authorities, centered about the impact on the southern regions of present world happenings and included such topics as: the premises of regional balance; transportation factors and regional development; regional development projects abroad; public policy in regional economics; regionalism and geo-economics; regional industrialization and standards of living; regional development of American markets for imports; national aspects of regional development. Wall exhibits, prepared especially for the conference, and a table display of current books on regionalism and world economcis supplemented the formal papers and discussions.

A somewhat different type of conference, yet nonetheless educational and interpretive, was the Lecture-Seminar-Conference on the Education of the American Negroes and the African Natives, held for the purpose of bringing together a number of educators of wide experience from the United States and from the British territories in Africa to discuss the problems of

the education of the American Negroes and of the Native Africans. The conference was conducted jointly by the University of North Carolina, Yale University, and Hampton Institute, with Howard W. Odum of the Institute for Research in Social Science and Charles T. Loram of Yale University, directors.

This Lecture-Seminar-Conference, held from September 1 to October 27, 1937, was attended by approximately sixty delegates. The members from the United States were, for the most part, the State Agents for Negro Education in the South, while the members from South Africa, selected by the British Colonial Office and the Government of the Union of South Africa, included educational officials in the service of the several British colonies and the Union of South Africa, together with some distinguished missionary educators.

The conference was divided into four periods. From September 1 to 29, the participants were at Chapel Hill for lectures, seminars, and discussions. From September 29 to October 31, the State Agents of Negro Education took the overseas visitors to see Negro schools in action. From October 13 to 20, the group met at Hampton Institute for the consideration of problems of agricultural, industrial, and normal school education. The last week of the meeting, from October 20-27, was spent at Yale University for additional lectures and for summarizing the conference.

While at Chapel Hill the delegates were accomodated at the Carolina Inn. The ball room equipped with table space for each member served as seminar headquarters. There were displays of pertinent publications furnished by the Yale University Press and the University of North Carolina Press. Motion pictures provided by the Museum of Art supplemented facts about this country, which limited travel time could not provide. An intense work period was covered each day with activities beginning at nine in the morning and ending at ten o'clock at

night, with recesses for relaxation and socialization interspersed. The conference was considered of special value as a medium for international understanding.

Distinctly educational and contributing in a large measure to better living is the Annual Conference on Conservation of Marriage and the Family, which met first during the summer of 1934. It resulted from the interest of college teachers in the methodology of instruction in preparation for marriage that had been developed at the University of North Carolina. Although succeeding programs continued to feature discussions of the problems of teaching marriage, they also included other topics relating to the conservation of marriage and the family and were broader in their appeal. This was in accord with the interests developed by the preceding conferences. For example, the ninth conference, which held its sessions, April 9-11, 1946, emphasized marriage counseling with a program on the third day under the auspices of the American Association of Marriage Counselors. The conference has always been under the direction of its founder, Ernest R. Groves, research professor in the Institute for Research in Social Science. In earlier years, Duke University cooperated with the University of North Carolina in sponsoring the conference, with one or more sessions being held on the Duke campus. Now the conference has been taken over entirely by the University of North Carolina.

The programs have always been made up of co-laborers in the field of marriage and the family engaged in practical services, teaching, or scientific investigation, and have featured national authorities in the several fields. In order to maintain its purpose—the meeting of specialists for discussion of common problems—the conference has not been open to the general public. In order also to maintain the intimate character of the conference and provide the best conditions for discussion, attendance has been limited to about one hundred and fifty per-

sons. Invitations are so distributed as to permit representation from a wide geographical area and the recognition of many different backgrounds of interest. Members have come from as far west as California and as far north as Canada.

At its closing business session, the Ninth Conference went on record that the conference be continued, with annual meetings at Chapel Hill, under the direction of Professor Groves with Gladys Hoagland Groves as co-director and Ray V. Sowers as associate director.

These major conferences and institutes are but milestones on the road of research and planning for which the Institute has broken the ground and along which it continues to move, clearing new paths, year by year. In between, there have been smaller meetings of committees and groups in many ways of equal importance since they have often shown the need and pointed the way to next steps for the more formal discussions. And now, added impetus and stimulation will be given to this essential phase of the threefold function of the program of the Institute for Research in Social Science through the coordinating and interpreting services of its Division of Research Interpretation which is already well on the way to serving the State and the region.

The Institute of Government

ALBERT COATES, DIRECTOR

The Institute of Government unites public officials, private citizens, and students and teachers of civics and government, in a systematic effort to meet definite and practical needs in North Carolina.

Aims and Objectives

1. *To bridge the gap between government as it is taught in*

the schools and as it is practiced in the city halls, county courthouses, and the state capitol.

This need grows out of the fact that, with rare exceptions, the high schools, colleges, and professional schools of North Carolina are each year graduating around 20,000 boys and girls who know something of textbook civics but little of practical government; know how to read a page of Latin but are unable to read their own municipal balance sheet; know how to find their way around Rome but not how to find their way around their own city hall, county courthouse, or state capitol. As a result thousands of officials are going into office without an opportunity to acquaint themselves with their powers and duties or the methods and practices of their predecessors. Hundreds of thousands of citizens are going to the ballot box without adequate understanding of the workings of their governmental institutions.

2. *To provide the machinery for putting the people in touch with their government and keeping them in touch with it.*

This need grows out of the fact that citizens for the most part do not become acquainted with the practical workings of their government in high school and college classrooms; that after they leave school they do not have any systematic way of keeping in touch with it as they busy themselves with the varied tasks of making a living; that in times of stress and strain they try to cut the climbing costs of government by organizing taxpayers' leagues and citizens' committees; that these leagues and committees are ill-equipped to find the facts they need to know; that even when they find the facts in their own local units they are crippled by the lack of a clearing house for the exchange of comparative governmental information with other units. These feverish organizations come and go with every depression. They have once more largely disap-

peared; but they lived long enough to point out with all the stinging freshness of demonstrated truth that foresight costs less than hindsight, that citizens can be constant sources of help instead of hindrance to their officials, and can save thousands of dollars for themselves by attending to their government as they attend to their business.

3. *To co-ordinate governmental machinery in overlapping governmental units and eliminate useless friction and waste.*

This need grows out of the fact that in the last 150 years the people of North Carolina have built on one land a pyramid of overlapping governmental units—federal, state, county, township, town, and special district. This means that a person committing a crime within city limits may be subject to arrest by city police, county sheriff, state patrol, or federal agent; that he may be prosecuted by a city, county, state, or federal prosecuting attorney; sentenced by a city, county, state, or federal judge; and sent to a city, county, state, or federal prison. It means that taxes may be levied and collected from the same citizens by city, county, state, and federal agencies. It means that we live under pyramiding laws enacted by city councilmen, county commissioners, state legislators, and federal representatives. For 150 years city, county, state, and federal officials have been working on the same problems for the same people in overlapping and adjoining governmental units without coming together in the practice of co-ordinated effort.

4. *To bridge the gap in knowledge and experience between outgoing and incoming public officials and cut down the lost time, lost motion, and lost money involved in a rotating governmental personnel.*

This need grows out of the fact that we are committed to the theory and practice of elective officers, short terms in office, and rotation of officers. This means that every two years hosts of newly elected officials take office in the cities, the counties, and

the State of North Carolina—too often knowing very little about the powers, duties, and administration of their offices—learning as they go. When their terms end, they are replaced by others who pick up the threads of administration, not where their predecessors left off, but almost if not quite where they began. Popular government, like the frog in the well, goes forward three feet and falls back two. Accumulated governmental knowledge goes over the wheel to waste. Government is forever in the hands of beginners who do not always have beginners' luck. This is costly training for which the people pay—not in the beginning but in the end. Private business, operating in this fashion, would go broke before beginners learned their business. Public business likewise may go broke before beginners learn their government.

More than common honesty is required in public office and likewise more than common sense. A hundred thousand dollars lost through honest inefficiency is as great a burden to the taxpayer as a hundred dollars lost through conscious fraud. Knowledge is no guarantee of character, we are told. Neither is ignorance. The best of governmental systems may be wrecked by men who do not understand it. After 200 years in the building of governmental machinery, we are beginning the training of the men who run it.

5. *To build a demonstration laboratory and clearing house of governmental information.*

This need grows out of the fact that while business men have been building their laboratories to analyze and compare the business methods and practices of others in order to improve their own, after 200 years of local self-government in North Carolina public officials have yet to build a governmental demonstration laboratory and clearing house of methods and practices in government.

The value of such a laboratory is illustrated by the following:

a. Improved practices of one tax supervisor in one year added 4,000 new taxpayers and $5,000,000 in newly discovered property to the tax books to lighten the load on those already there.
b. One city reorganized its tax collecting machinery, improved its operations and cut down the cost of operation $6,500 annually.
c. The accounting system of one governmental agency was simplified and the cost of annual audits reduced from $1,800 to $300.
d. One local official saved the cost of his salary by improved methods in the administration of his office.
e. At least one local unit has worked out methods by which 98% of its taxes are collected in the current year while methods of some other units collect around 50%.

When specific illustrations such as these may be multiplied over and over again and new methods, worth their weight in gold, are continually arising out of the initiative and resourcefulness of public officials, the rewards of lifting the poorest governmental practices to the level of the best begin to dawn upon us, and the importance of this demonstration laboratory and clearing house of information is apparent.

Sources of Information—Comparative Studies of Laws and Practices

A small percentage of our governmental knowledge is in the books—scattered through constitutions, statutes, decisions, and administrative rulings. The greater part is in the methods, practices, and experience of officials in 100 counties, 300 cities and towns, and four score or more state departments and agen-

cies. The members of the staff of the Institute are now going from city to city, county to county, state department to state department, collecting, comparing, and classifying these laws and practices in books and in action.

The results of these comparative studies are being set forth in guidebooks, programs, and supplementary texts, taught in institutes, demonstrated in laboratories, and transmitted through the clearing house of information to the officials, the citizens, and the students and teachers of civics and government in the cities, the counties, and the State of North Carolina.

1. *Guidebooks, Programs, and Texts*

Set forth in guidebooks for officials, programs for citizens, texts for students and teachers of civics and government.

a. The *guidebooks* will bring to incoming officials in the cities, the counties, and the State clear and concise statements of the powers and duties of their offices, the methods and practices of their predecessors and of other officials in this and other states and thus help incoming officials pick up the threads of government nearer the point where their predecessors left off than where they began.

b. The *programs for governmental study and discussion* will bring to citizens throughout the State clear, concise, and accurate information about the structure and the workings of their state and local governmental institutions and thus help to put them in touch with their government and keep them in touch with it. Materials for these purposes, prepared and published by The Institute of Government during the last three years, include 150 studies and articles adding up to 1800 printed pages.

2. *Institutes*

Taught in institutes for officials, citizens, students, and teachers of civics and government.

a. *Institutes for officials* will bring together city, county, state, and federal officials in systematic study of their common

problems and lay the basis for co-ordinating governmental machinery in overlapping governmental units.

b. *Institutes for public affairs committees of civic organizations* of men and women will acquaint them with current developments in state and local governments, and enable them to turn the public affairs meetings in their respective organizations into a systematic program of governmental education throughout the year on a local and statewide scale.

c. *Institutes for students and teachers of civics and government in the schools* will equip them to interpret the current developments in government and its administration and focus them in the classroom at the classroom hour.

3. *Governmental Laboratory*

Demonstrated in governmental laboratory offices to which successive generations of officials, citizens, students, and teachers of civics and government may go to see illustrated in one place the methods and practices in use in city halls, county courthouses, and state departments throughout North Carolina.

4. *Clearing House of Information*

Transmitted through the clearing house of governmental information to city halls, county courthouses, state departments, federal agencies, the schoolrooms and the people; between local units, between state and local units, between federal, state, and local units; and between officials, citizens, and students and teachers of government.

The Inter-American Institute

STURGIS E. LEAVITT, DIRECTOR

The University of North Carolina has long been interested in Latin America. Members of the faculty have been engaged in research in the Hispanic-American field, the university has been developing a collection of Latin American materials, and

its curriculum has touched upon Latin America in various ways. There were many reasons, therefore, for it to be selected in 1940 to conduct an experiment which was destined to be far reaching in its results.

In 1940 the Institute of International Education, the Grace Steamship Line, and the Pan American Union approached the University of North Carolina with the suggestion that it act as host to a group of students and professional people to be brought from South America during their vacation months to attend a special session similar to the usual summer schools for North Americans held in Latin America.

The suggestion met with favor and a sponsoring group was formed to coordinate the interests and activities already established at the University of North Carolina and to carry out the summer school idea. Thus it was that the Inter-American Institute of the University of North Carolina was established. Sturgis E. Leavitt was appointed Director, and J. C. Lyons, Executive Secretary. An advisory committee and a working committee were appointed. Steamship companies, the Institute of International Education, the Carnegie Endowment for International Peace, the American Council of Learned Societies, the Office of the Coordinator of Inter-American Affairs, and the Pan American Union, all gave their support to the undertaking.

The program of instruction for the "Winter Summer School," so-called because it was held in the South American summer months of January, February and March, aimed to provide for the individual interests of the students and to present to them characteristic aspects of life in the United States. Practically all the departments of the University cooperated in the effort, and the usual university activities were supplemented by additional lectures, trips to other educational centers and industrial plants, radio broadcasts, social functions, and many

other first-hand contacts with the "Average American." One hundred and eight students and professional people attended, representing seven countries from South America. Thirty-seven were women, and seventy-one were men.

The lack of an adequate command of English on the part of a number of the group created considerable difficulty. To aid in solving this problem I. A. Richards, Head of the Orthological Institute in Cambridge, Mass., offered his services, and he and his staff were most successful with instruction in Basic English. The problems of individual interests in professional work were met by the cooperation of the staff of the Duke University Medical School, the faculty of State College, the military personnel at Fort Bragg, and others. The departments of the University held individual conferences with those having special problems.

The Extension Division served as the business agent for the school. It was responsible for much of the correspondence, publicity, details of financing, and business agreements with transportation companies, hotels, and publishing houses.

The 1941 "Winter Summer School" was generally considered a definite contribution to the Good Neighbor Policy. A second school was planned for 1942, and lessons learned from the first experiment were expected to improve the selection of students, the daily schedule, and the program in general. Registrations were promising and a large number of students seemed assured when Pearl Harbor and consequent dangers of ocean travel threatened to cancel out all the plans. However, eleven students from three countries attended. The aims of the 1942 school remained the same, but the methods were adjusted to meet the needs of a smaller number of students. For a fuller statement of how these schools operated and what they accomplished the reader is referred to mimeographed reports prepared by the Director.

The two special sessions of "Winter Summer School" just described were a spectacular demonstration of the great interest in Latin America felt by the University of North Carolina; but on account of war conditions, it seemed for a time that further activities would have to be postponed. It was therefore a happy surprise to be asked by the U. S. Office of Education and the State Department to cooperate in a session for Mexican teachers who were being brought to the United States to improve their knowledge of English and to observe methods of instruction.

A party of five men and five women arrived in January, 1943, and stayed in Chapel Hill until the last of February. All were teachers of English in Mexico City and for them classes were organized in Public Speaking, Diction, Phonetics, Conversation, and Methods of Instruction. Each class was directed by a specialist, and individual improvement was most satisfactory. Academic training was supplemented by life in dormitories and private homes, by student entertainments, athletic events, attendance at moving picture theaters, and informal parties given by local residents. A trip to Raleigh during which the students met the Governor and were entertained by Mr. and Mrs. Josephus Daniels was the high light of their stay.

As on previous occasions, the Extension Division played an important part in making this school possible. Assuming responsibility for business matters, it made arrangements for housing, transportation, trips, and incidentals necessary to physical comfort.

In 1944 the Division of Education of the Commonwealth Fund worked out a plan whereby an English school was to be conducted for Commonwealth Fellows to be brought from Latin America to study medicine in the United States. The experience gained from previous schools gave the University an unusual opportunity for service on this occasion. The Fellows in attendance were professionally trained as doctors or engineers.

They came to Chapel Hill with the express purpose of increasing their ability to understand English and to learn to express themselves in this difficult language in order to profit from study in their professional fields.

For this school the mornings were devoted to class instruction. Sometimes the students met as a unit and at other times in small groups, as the need dictated. Definite attention was given to increasing vocabulary and to improving diction. The afternoons were spent in small groups observing work of a typical North American university, and some time was devoted to the acquisition of a scientific vocabulary. Lectures were given in the evening to provide training in understanding connected discourse. Moving pictures proved a source of both entertainment and instruction. Passes were issued by the local management to all members of the group and many students attended with the regularity of a class assignment. From time to time question periods followed attendance at the movies in order to ascertain how much the students understood. This school was attended by ten doctors and two engineers. Nine countries were represented.

A second school for Latin American doctors was sponsored by the Commonwealth Fund in 1945, with highly satisfactory results. This school was attended by ten doctors of medicine and one pharmacist. Eight countries were represented.

The University of North Carolina Press

THOMAS J. WILSON, DIRECTOR

An article on The University of North Carolina Press in a book on the University's Extension Division might seem at first blush to be an anomaly. The responsibility of the Extension Division is to spread the teaching, and the cultural and economic benefits and influence, of the University beyond the

geographical limits of the campus. The function of the Press is obviously to produce books for public consumption. But, on further consideration, the essentially close relationship between these two parts of the University becomes clear. For the publication of books to be read by the people is after all just another way of "extending" the University's services beyond the local classrooms. It falls in the same category and is on the same level of importance, to my mind, as the Extension Division's Communication Center, its correspondence courses, its lectures in the farthest corners of the State, and its seminars, conferences, and general meetings here at Chapel Hill.

Various tangible evidences symbolize the kinship of the Extension Division and the Press, and the mutuality of their fundamental interests. The Director of the Extension Division is a member of the Board of Governors of the Press and of that board's Finance Committee. Other Governors of the Press are active in the affairs of the Extension Division. The *Extension Bulletin*, now in its 25th volume, is prepared and distributed by the Extension Division, but is published under the imprint of The University of North Carolina Press and is one of those regular periodical publications on the Press list which have contributed heavily to the reputation of the Press in the public eye. Other direct connections and relationships between these two parts of the University could be brought forward. They do not appear necessary, however; the actual and tangible interlocking of the Extension Division and the Press, important as it may be, is not the reason for the presence of an article about the Press in this book; nor do the evidences of such an interlocking stand as more than a mere sign of the work of the Press in extension.

The books of the Press, and its periodical publications *other* than those for which the Extension Division is primarily responsible, constitute the real service of the Press in bringing the

University into the homes and the lives of the people of the State and the region. These book and magazine publications, with no apparent connection with the Extension Division, are in themselves independent and informal instruments in extending the service of the University of North Carolina. Governed by no course of study, and having as subject any chosen field of human knowledge, interest, or endeavor, each of these works acts as a missionary of the University to readers everywhere; together they form a fruitful and diverse source-book of learning, entertainment, and practical information which is as truly a part of the offering of a modern university as its classes on the campus.

The University of North Carolina Press was founded in 1922, under the directorship of Dr. Louis R. Wilson and with a Board of Governors composed of those faculty members and alumni who, perhaps better than others, understood the full potential of the University as a servant of the State and the region and as a force for growth and improvement. Under Dr. Wilson's guidance until 1932, and then, after his resignation, under the directorship of Mr. W. T. Couch, the Press has weathered many threatening storms, has faced actual bankruptcy more than once, but has continued to grow in the volume and, more important, in the quality of its offerings until today it stands in the very forefront of the university presses of the nation. Still far from being the largest academic publishing concern, still faced with real financial problems and unable because of them to contribute its maximum to the welfare of its public, the Press is recognized as the most important publishing house in the South and, to a large extent, as the true voice of the region. On its list stand works of authors from every corner of this country and from many foreign countries; its books are sold wherever books in English can be read and American goods purchased. This diversity of authorship and this breadth

of distribution are of course marks of the distinction of the Press. But, in the final analysis, the books by North Carolina and southern authors for regional consumption constitute the major work of the Press "in extension" and are at the same time the foundation of its greatness as an enlightener of the people it serves. Proud as the Press may be of its "foreign" books and authors, its contribution in the long run will be measured in terms of the value to the South of the works it publishes by native and adopted sons and daughters of the South—works by writers who may be called Odum, Vance, Johnson, Paul Green, Koch, Couch, Coulter, Bullock, Sharpe, Coker, Waterman, Harris, or Daniels—or whose names may be entirely new but yet akin to those names in the tradition of service. The primary purpose of the Press is to advance the learning and to increase the material and spiritual welfare of North Carolina and the South. The published work by which it will continue to accomplish that purpose will be the work of those who know the South, love it for its virtues, and are determined to eliminate its vices.

Today the University of North Carolina Press stands at a crossroad. After seeing the Press through its childhood and adolescence and marking its attainment of maturity, Mr. W. T. Couch resigned the directorship in the Fall of 1945 to become Director of the University of Chicago Press. To a large extent W. T. Couch *was* The University of North Carolina Press for twelve years or more. He took the responsibility for the books it published; he saw that these books had a fair chance to reach their intended or putative markets; he pinched pennies and saved dollars to make both ends meet when less courageous men would have concluded that the State would not or could not give him the support he had to have. When he left the Press, it had achieved the dignity and continuity of a full-fledged publishing concern; its annual lists averaged twenty-five or more volumes a year; its books, scholarly or popular,

fell in fields ranging from higher mathematics and philosophy, through the natural and social sciences and the humanities, to fiction and poetry. With a Board of Governors made up of some of the ablest and most active members of the University faculty and with a staff of twenty trained employees, it was fully prepared to judge, to publish, and to promote the sale of any good book which came to its hands. And with a subsidy from the State, through the University, which had finally attained reasonably generous proportions, it could feel at least relatively secure, at least fairly confident that it would be able to continue its work and to grow in influence and service.

The staff of the Press and its present, newly-elected director are naturally determined to follow in the tradition of Louis R. Wilson and W. T. Couch and to extend the usefulness of the Press along and beyond the lines laid down by those two pioneers. Works of political, economic, and social analysis, works of history and science, works of creative genius in the fields of pure literature and the arts will be published as they come to the Press and as its funds permit. It will attempt to give just and fair consideration to every manuscript or book idea calculated to add to the learning of our people, or to their wealth, or to their enjoyment. Thus it may hope to fulfill its function of service to the people of the State and the South, and to *extend*, in the real sense of that word, the work of the University of which it is a component part.

VII

UNIVERSITY EXTENSION IN WARTIME

UNIVERSITY EXTENSION IN WARTIME

The pattern of University Extension during the war emergency (1941-1945), was quite similar to that during 1917-1918. In each of these war periods, the University made major adjustments to serve the nation. Extension services were likewise adjusted to meet the needs of the time.

During World War I, the Bureau of Extension was very active in publishing and distributing literature, in sending lecturers to communities throughout the State, and in other ways guiding the wartime thinking of North Carolinians.

World War II, because of its scope and duration, caused many more adjustments to be necessary. The induction into the service of essential personnel at a time when activities were increasing was only one of the many administrative problems growing out of the emergency. The University Administration in its attempt to house adequately the Navy and Army Units installed here, found it necessary to move the Extension Division offices several times. Each time there was a telescoping effect, making efficient work more and more difficult. Thus, short-staffed and in cramped quarters, the assuming of war demands necessitated adjustments of finances, personnel, time, and equipment. How successfully this adjustment was made may be judged by the following account of activities.

The heads of bureaus and services of the Extension Division found that the war presented new challenges. While keeping alive essential activities already in the annual calendar, they shifted the emphasis in work, added new ideas, and produced programs aimed at meeting these new demands. In most cases the war heightened interest and vitalized existing procedures. The volume of work increased considerably in most of these departments.

Adjustment of Existing Activities

THE CAROLINA DRAMATIC ASSOCIATION

Each year during the war, spring gave rise to the same question as to the advisability of holding a Drama Festival. Each year the decision was the same, the Festival was held. It brought to "the Hill" a surprising number who believed they should continue because of the war rather than in spite of it. The Association sincerely believed that the theater was playing a great role in the preservation of creative instincts during a period of destruction. To foster this idea, a new contest in playwriting was established for servicemen. This contest had specific rules for entry, stipulations for submitting manuscripts, arrangements for awards, and provision for the production of the winning play by the Carolina Playmakers. Two such plays were produced by the Playmakers. One was published commercially. The continuance of activities and the broadening of policies kept the Association in a position to meet the challenge presented by the war.

THE CAROLINA PLAYMAKERS

In the early days of the war, the National Theater Conference was asked by the United States Army to sponsor a theater experiment in an army camp. This assignment fell to the Carolina Playmakers. Under the direction of "Proff" Koch, Joseph Lee Brown went to Fort Bragg and organized a "little theater" program for the camp. It was an experiment in army life, but its success was confirmed by the fact that later when the Army organized the Special Services Corps, the fundamental ideas and plans developed by Mr. Brown were incorporated in its program.

Tours carrying Playmaker productions to all parts of the State have for years been part of the annual schedule. These

were continued and expanded to include U.S.O. clubs and military installations. The playbill was made to fit the occasion. Camp productions, put on in the lighter vein, were double-duty shock absorbers, furnishing fun and frolic for both the actors and the audience.

THE CAROLINA INSTITUTE OF INTERNATIONAL RELATIONS

This organization has, from its inception, been dedicated to the idea of "creating a better understanding of world affairs." Its programs have always stressed the interpretation of economic and social conditions affecting world peace. After Pearl Harbor, more emphasis was put upon the part the United States must play in world reconstruction. Discussions placed responsibility upon this nation for world organization, education, religion, and economic security, challenging all intelligent leaders to interpret this responsibility to the people.

Due to the shortage of accommodations, the summer institute, which had for many years been held on the Chapel Hill campus, was transfered to the Woman's College at Greensboro. During the war years a growing interest in world affairs was indicated by the large increase in the number of people attending the Carolina Institute on International Relations.

FILM SERVICE

The Bureau of Visual Instruction, through its rental library, has for years been furnishing schools and civic groups with films and slides for educational purposes. With the advent of war and its accompanying problems, many new films were needed. The Office of War Information used the University Film Library as a depository for its informational films. These were listed in a special supplement of the Audio-Visual Aids Catalogue and were widely distributed throughout the State.

Other agencies following the same policy were: the British Office of War Information, the United States Department of Agriculture, the Office of the Coordinator of Inter-American Affairs, the Canadian Film Service, and the French Film Service. Such titles as "Black Market," "Mission Accomplished," "She Serves Abroad," "Food for Combat," and "The Fighting French Navy," helped to interpret war emergencies to the general public.

HIGH SCHOOL DEBATING

Little change was necessary in the general procedures of this activity to make it serve war needs. Recognizing the opportunity to provide free discussion of questions growing out of the conflict, the attention of the schools and the public was focused on such questions as "Post-War Organization for World Peace" and "Compulsory Military Training." Travel difficulties and the lack of adequate housing facilities made it necessary to limit the number of contestants coming to Chapel Hill. This fact necessitated a change in the method of conducting the preliminary contests. The adjustments made served wartime conditions but are not recommended as a permanent arrangement.

RADIO PROGRAMS

The physical facilities for radio were definitely curtailed by the changes brought about on the campus due to the war. For more than two years, the equipment was stored in packing boxes, scattered over the campus. It was moved intermittently as the demand for more space increased. Each move resulted in breakage and loss. When at last space was found, it was impossible to secure replacements of essential parts. Despite these difficulties, broadcasts were resumed. The emphasis was placed on discus-

sion and forums that would aid in the understanding of national problems created by war. The Department of Journalism and interested faculty members participated. Music and drama returned to their usual roles on the air.

THE SOUTHERN COUNCIL ON INTERNATIONAL RELATIONS

The war quickened interest in world affairs. People became map conscious, economic minded, and sincerely concerned about peoples in remote parts of the globe. Using these expanded interests as a spring board, the Southern Council on International Relations, working in close cooperation with the Extension Division, increased its membership and enlarged its program of adult education. The council furnished literature on current international affairs, arranged radio broadcasts, art exhibitions, open forums, lectures, and motion picture showings. It made press releases available and provided a loan service of books and pamphlets. The council also directed the North Carolina Lecture-Institute program of the Office of the Coordinator of Inter-American Affairs. Such lecturers as Hubert Herring and Guy Inman toured the State carrying first-hand information to local communities.

New Activities

Many of the problems growing out of war conditions could obviously not be met through existing educational agencies. It became necessary to develop additional services and activities. New Federal organizations were established and most of the old agencies initiated projects to aid the war effort. Several of these turned to the University for cooperation in carrying out their plans in North Carolina. The Extension Division representing the University, adjusted staff, finances and space whenever possible in order to expedite the wartime program of adult education.

UNIVERSITY CENTER FOR CIVILIAN MORALE SERVICE

Prior to Pearl Harbor, the United States Office of Education began a national program to bring about "intelligent and alert presentation and discussion of all issues concerning the war." The mechanism established for this achievement was known as The School and College Civilian Morale Service. The Director of the Extension Division became a member of the National Advisory Committee, and the University became a cooperating institution.

The Director of the Extension Division served as coordinator of the University's Center for Civilian Morale Service. Its work was divided among eight committees: library of information; public relations; curriculum studies; finance; forums, radio, institutes, and round tables; leadership training; research and preparation of materials; and publications.

Each of these committees, headed by a University faculty member well qualified for the responsibility, developed activities in their assigned field. Under the direction of Charles E. Rush, University Librarian, the Information Center at the Library assembled a "pertinent collection of books, pamphlets, reports, bibliographies, government publications, discussion outlines, and other up-to-the-minute materials." These materials were loaned without charge to individuals and organizations throughout the State.

The committee for research and preparation of materials constantly culled new publications for usable facts and ideas. These were arranged in suitable form for distribution to forum and discussion groups. Such groups increased in number, through the effort of the director of that division. Materials in packet form were furnished upon request. Forum speakers from the faculty and the student body were made available. The training of these student leaders was one of the functions

of the Center. Radio played an important part in presenting the pros and cons of many questions. Regularly scheduled broadcasts featured round-table discussions of timely problems.

In providing these services to the State, the University had the cooperation of the State Department of Public Instruction, the State Council of National Defense, the State Library Commission, the N. C. College Conference, and many local groups representing the American Legion, P.T.A., civic clubs, labor unions, and negro groups.

ENGINEERING, SCIENCE, AND MANAGEMENT WAR TRAINING

Born of the pre-war shortage of engineers in war industries and christened as a Defense Training Program, the Engineering, Science, and Management War Training Program developed into a major activity lasting over a five-year period.

The program which was financed through the U. S. Office of Education was provided to "assist private industry with war contracts in selecting, recruiting, and training the additional manpower needed for all-out war production."

The Director of Extension was appointed a member of the National Advisory Committee and served also as "Institutional Representative" for the University. The Extension Division became headquarters for this work and a Field Representative was added to the staff. Thirteen teaching centers were established throughout the State. Instructors were sent out from the University, and others were selected from the local industries. As requests came in, courses were set up and approved so that industrial personnel shortages could be met locally as they arose. The program actually got underway in the fall of 1941. That year thirteen courses were taught in five centers. There was an enrollment of 395 students. Two hundred and twenty-

one completed the work satisfactorily and were issued certificates. The work continued through the Spring of 1945. In all, a total of one thousand four hundred and seventy-eight students enrolled in the fifty-two courses offered. The subjects taught were: Manufacturing Accounting, Personnel Management, Production Cost Accounting, Fundamentals of Purchasing, Statistical Methods Applied to Quality Control, Physics for high school teachers, Industrial Management and Supervision, Physics for college teachers, Chemistry of Water Purification, and Time and Motion Study. Two courses were offered by correspondence, namely, Mathematics and Physics.

After V-E Day when changes were beginning to be made in many Federal agencies, the E.S.M.W.T. program was tapered off and discontinued on June 30, 1945.

UNITED STATES ARMED FORCES INSTITUTE

On April 22, 1942, the University of North Carolina signed a contract with the War Department to offer through the Army Institute (later changed to the United States Armed Forces Institute) certain correspondence courses to enlisted persons who had been in active service not less than four months, the Government paying one-half the cost of texts and tuition fees not to exceed $20.00 for any one course. Seventy-seven courses were approved, representing the departments of Economics and Commerce, Education, English, Geology and Geography, Sociology, and Rural Social-Economics. Later, courses in the departments of Art, Dramatic Art, and Philosophy were added and the contract was changed so that persons eligible to enroll through the Institute included enlisted persons who had been in the U. S. Army four months and personnel of the U. S. Navy, U. S. Coast Guard, and U. S. Marine Corps who had been in active service not less than two months. To date nearly one thousand servicemen and women have enrolled through

the Institute. It is amazing, but encouraging, to find persons located in remote places all over the world, often threatened by attack or preparing to enter battle, eagerly trying to carry on their education. Among those endeavoring to continue their studies under what must have been extremely trying circumstances were men aboard numerous war ships, landing craft, coast guard cutters, in camps all over the United States and in the following distant places: North Africa, Italy, England, India, New Guinea, New Caledonia, Puerto Rico, South America, Guatemala, Panama, Alaska, and Hawaii. A staff sergeant in the Signal Corps wrote that he was on Martha's Vineyard Island for the purpose of carrying on certain tests. He stated that he worked all of the daylight hours of the day, seven days a week, and that he had to study by candlelight. He explained that he lived in a tent and that the weather was so cold that he found it necessary to go to bed early, so could not study at that particular time but intended going ahead with his work as soon as he could. The following was taken from a letter from a private first class: "I've written from ships, fox-holes, trenches, and other unusual places and under highly unusual circumstances. I've written on every type of paper imaginable. In fact, I am fortunate that I haven't had to use the actual bark from the trees. So my paper and materials will not always conform with the prescribed requirements." Much interest is shown in correspondence courses as evidenced by the large number of requests for information received from individuals and special service officers or educational directors. An average of six requests have been received daily for information about the correspondence courses offered through the Institute. Many officers in the Army who were ineligible to enroll through the Institute expressed their willingness to pay the fees themselves in order to continue their education. In such cases the usual

registration fee of two dollars was waived and only in-state course fees were charged.

The United States Armed Forces Institute purchased, on a cost basis, for the use of army personnel overseas who were not interested in degree credit, copies of a two semester hour course in English, "Introduction to the Short Story," copies of a two semester hour course in Business English, copies of a three and one-third semester hour course in the same subject, copies of a course in Business Law, and copies of a more advanced course in the same subject. This material was printed, bound, packed, and shipped from Chapel Hill.

At the request and with the approval of the War Department correspondence courses were offered to enemy prisoners of war in this country. Course material was also sent to the War Prisoners' Aid of the YMCA to be forwarded to American prisoners in Germany, one of whom was a former University student.

Correspondence courses have been revised, when necessary, so as to confine required supplementary reading to books that are sold when the student enrolls or that may be made readily available to students not having access to good libraries.

The Director of Extension was recently appointed a member of the War-Navy Committee on the U. S. Armed Forces Institute.

CONFERENCES AND INSTITUTES

War emergencies necessitated the placing of many controls upon civilian activities. The success or failure of such controls depended to a large extent upon the intelligent cooperation of all those affected. To attain better understanding of certain government programs the University cooperated with governmental agencies in sponsoring conferences and institutes, the

purpose of which was to interpret and clarify the civilians' part in a wartime economy.

Before Pearl Harbor, the Extension Division cooperated with the Workers' Education Bureau of America and the North Carolina Federation of Labor in sponsoring an Institute on "Labor in National Defense." At this time, representatives of labor and industry discussed the "Rights and Responsibilities" of each. The interdependence of labor and the farmer was developed and the relation of Government to labor explained. Speakers represented diversified groups so that well balanced discussions were possible.

After the war began, problems of interpretation developed rapidly. Because labor was affected both as a producer and a consumer, members of that group were particularly confused and at the same time their numbers made cooperation most important. The War Production Board, the Treasury Department, the Office of Price Administration, and the Office of Civilian Defense united in their efforts to explain the programs of their agencies. On the other hand, the American Federation of Labor, the Congress of Industrial Organizations, and the Standard Railway Brotherhoods united in an effort to understand the workings of these programs.

A Tri-State Conference on "Labor in the War" was held in the spring of 1942. Representatives from each governmental agency had a place on the program. Local labor unions in Virginia, South Carolina and North Carolina sent representatives. Attendance at the three-day meeting totaled three hundred and fifty.

With pressures continuing to mount, labor again sought clarification of national problems. It took the initiative and, probably for the first time in the history of organized labor, held a conference at which no discussion of labor problems, as such, took place. The sole purpose of the conference was to se-

cure a better understanding of the controls placed upon citizens by the Office of Price Administration. The O.P.A. welcomed this opportunity to help educate the consumer in the principles of rationing. An institute on "How Labor Can Help Safeguard America's Wage Dollar" was held at the University in April 1944. Officials of the O.P.A. explained reasons for price control, rent control, and rationing. The aims of the program, the reasons for it, and suggestions for cooperation were clearly presented. Labor in North Carolina thus became more intelligently informed. Chester Bowles, Administrator of the Office of Price Administration, made this statment in writing to the group: "The success of the O.P.A. price and rationing program is determined by the extent to which the great mass of people in each community accept it as their own and work actively in support of it. Organized labor recognized this simple fact almost two years ago and since then has contributed more to the success of our program than any other organized consumer group."

Another conference for the purpose of interpreting the O. P. A. program was held in April 1945. At a "Symposium on the Consumer in Wartime," representatives of many consumer groups discussed the effect of price controls. Bankers, food dealers, clothing merchants, and consumers became more clearly aware of each other's problems. Officials of the government and representative citizens discussed their problems frankly together and the results were mutually beneficial.

COOPERATION WITH ARMY UNITS

From the very beginning of the draft, the Army provided educational opportunities for its personnel. Many of these were organized and supervised by the Army. Others were the result of cooperation between the Army and nearby educational in-

stitutions. The University of North Carolina was fortunate in being selected for such cooperation, and the Extension Division, in several instances, served as the coordinating agency.

One such service that provided much satisfaction has already been discussed under U.S.A.F.I. This provided a formal type of training leading to a degree. On the other hand, music, films, and lectures provided informal education and recreation. Since the return of wounded veterans to Army hospitals, this service has increased considerably. In cooperation with education and information officers, the Director of Extension undertook to provide lecturers who could interpret history and discuss economic, social, and political problems in a popular manner to audiences varying widely in intelligence and educational background.

The University Film Library was used extensively by nearby camps. To aid in the selection of titles, the Bureau of Audio-Visual Education issued a special supplement to its regular catalogue. Many films have been used for orientation, appreciation of national resources, and cultural backgrounds, as well as for entertainment. Convalescent hospitals were heavy users of these films.

Prisoner of War Camps located in North Carolina were also served. Correspondence courses were made available so that prisoners could continue their studies. Albums of classical music, films, and lecture services were used to a limited extent. One lecturer from the University, who was born in Germany and later became an American citizen, spoke very successfully before an audience of 1200 prisoners. He was asked to return several times and, according to American officers in charge, his contribution to straight thinking can hardly be overestimated.

The War Department approved the offering of correspondence courses to enemy prisoners of war and several enrolled for courses in English, Geography, and Latin. In a letter re-

ceived from the camp spokesman at the Prisoner of War Camp, Papago Park, Arizona, expressing appreciation of the services rendered, he says, "All students . . . assured me of having enjoyed their studies and having gained a lot. Your method of teaching, having been new to us, has been greatly appreciated. . . . We should be glad if the American Government would permit us further enrollments from Germany."

Soon after the establishment of army convalescent hospitals near Chapel Hill, army "tours" became a regular activity. The Division was asked to make the necessary local arrangements. Aside from the fact that an outing was in itself a morale builder for men so closely confined, the tours were frequently a part of their educational program. Since many young men plan to enter or return to college after their discharge from the service, they visited the departments of Physical Education, Physics, Chemistry, and others and asked questions regarding entrance requirements and fees. During a six month period, there were an average of three such tours each week. A representative of the Division or the University Public Relations Committee accompanied each group around the campus and presented human interest stories, as well as historical data and academic information.

The War Information Center

AGATHA BOYD ADAMS, SUPERVISOR

Several weeks before Pearl Harbor the rumor began to go around that an Information Center was to be established in the University Library—only we didn't call it a War Information Center then. "Information Center on Civilian Morale" was the first title chosen. And that change, by the way, from the restrained phrase "civilian morale" to the grim word "war" reflected the tremendous change in American attitudes during the year that was past, the change from defense to the aggres-

sion of total war. Back in those weeks before Pearl Harbor, and even immediately afterwards, there were sceptics who questioned the need for a special wartime information center in the Library. What was it for? What purpose would it serve not already adequately served by existing departments of the Library? If requests for such information came in, couldn't they be handled by the Extension Library? Even those of us who started working on the Center from the very beginning were not a bit sure just where we were going. But Charles E. Rush, University Librarian, had established such a Center in the Cleveland Public Library more than a year before. He was convinced of its usefulness and its importance. And he had the farsightedness and the enthusiasm which the rest of us lacked —at the beginning. The Information Center at Chapel Hill was actually opened the morning of December 8, 1941. Thus both Cleveland and the University of North Carolina became pioneers in establishing information centers.

What was the purpose of the Information Center? Primarily, to acquire a highly selected collection of up-to-date books, pamphlets, maps, clippings and other materials relative to the war which we were all engaged in fighting; to focus attention on this material; to make it readily accessible, easy to see, to examine, to borrow for reading; to make this material available not only to students of the University and the people of Chapel Hill, but also to anyone in the State who wanted it. Elmer Davis had challenged librarians "to see to it that the people have the facts before them. . .In the present war, as never before, this duty of librarians assumes a first and pressing importance." The War Information Center was the University Library's answer to that challenge—an answer made almost a year before Elmer Davis's appeal to American libraries was issued.

One of the first steps in establishing the Information Center was to find out what books the Library already had which were

related to the present crisis. This was done before any new books were bought. Many of these already-owned books were brought out of their hiding places in the stacks and put on open shelves where everyone could see them; they were recent books on the different countries at war, our allies and our enemies, and books dealing with the history of the past twenty-five years, the failures of peace and the causes of conflict.

Another step was to write to such agencies as the British Information Services, the representatives in this country of the allied governments in exile, and many agencies interested in peace, in post-war planning, and ask to be put on their mailing list. This request bore much fruit—some days almost too much. Interesting and lively pamphlets and posters began to arrive in quantities large enough to keep the small staff busy taking care of them.

Early in December, 1941, the Information Center had been designated one of the one hundred and forty key centers of information to be sponsored in colleges and universities throughout the country by the United States Office of Education. This meant that we immediately began to receive material from the government; from the Office of Facts and Figures—later superseded by the Office of War Information; from the Office of Price Administration, from the Office of Education, from the National Resources Planning Board, and numerous other related or associated agencies. The Information Center assumed bulk and reality as the files of pamphlets filled up. We were beginning to grasp more clearly what sources of material we could count on, what kinds of information could be derived from that material, how it might be used.

The University set aside a sum of money to be used to buy new books, pamphlets, magazines, and maps for the Information Center. Month by month, that sum was used to add to the collection of fresh up-to-the-minute books about our allies,

about our armed forces, and about the various intricate and far-reaching problems of global war, both at home and overseas.

The location of the Information Center helped to draw the attention of all readers to it. In the main lobby of the Library, just at the front entrance, a big V-shaped counter held the most recently received books, and such current periodicals as *Life, Fortune, The United States News, New Europe, Britain,* and news from the different governments in exile. Back of the counter were shelves of recent books. All of the material assembled here could be taken out, including the magazines and the extensive collection of pamphlets. Someone was always in attendance at the desk, to help those who wanted suggestions about reading.

Colorful and often dramatic war posters were displayed on bulletin boards around the center. Some of these were from our own government—others came from overseas, from India, from Canada, from Czechoslovakia, from Australia, from Great Britain. They were frequently changed, so that there was nearly always something new and arresting to look at. Four other bulletin boards carried the news of the day in clippings, pictures, and maps. A large scale map of the world, and another large map of the Pacific helped in locating rapidly shifting events.

The Information Center was open all day every week day including Saturday, and every evening except Saturday and Sunday. It would not have been possible to keep it open for such long hours without the aid of volunteers. Women who, when they volunteered with the Chapel Hill Office of Civilian Defense indicated a preference for work of this type, were assigned to the Information Center for duty. This group of twenty or more women disproved every objection that has ever been raised to the use of volunteers. The achievement of these volunteers maintained a very high average, and many of them

experienced the thrill of satisfaction that comes from finding just the right book, or just the right answer to a request. The work of these volunteers was undoubtedly a factor in winning for the Information Center the commendation of the Carnegie Corporation. The annual report of the corporation for 1942, in speaking of the part played by libraries in the war effort, singled out the public libraries in Baltimore, Los Angeles, Denver, and New York, and then continued "The University of North Carolina, with its unusual library of war literature staffed chiefly by faculty wives and serving the entire State, is an outstanding example among the academic libraries."

The Information Center loaned books and pamphlets to those who wanted them, without any rental, serivce charge, or fine. And that went for everybody in the State of North Carolina. The morning mail might bring a request from a small public library in the western part of the State: "We are putting on an exhibit on the United Nations. Can you lend us material?" We could, and one member of the staff started collecting books, pamphlets, and posters to be lent for that exhibit. A school library wanted material on service opportunities in the armed forces. A lad already in the Naval Reserve and located in an isolated community wanted the required list of technical books for his branch. A preacher was interested especially in plans for peace; what could we send him?

Both students and faculty responded with enthusiasm to the service offered by the Information Center. Their enthusiasm and their interest suggested ways of enlarging and enriching the scope of our collection. The use of the Information Center by the campus in general amply justified the farsightedness of Mr. Rush in establishing such a collection. We endeavored to keep the collection flexible and aware of the constantly shifting needs and interests of the University, the community, and the State.

VIII

A LOOK AHEAD

A LOOK AHEAD

In the preceding chapters, the story of University Extension in action at the University of North Carolina has been presented in rather general terms. Little attempt has been made to explain in detail the services and activities or to evaluate them. An objective appraisal of University Extension might well be the subject of a special study, the result of which would unquestionably aid in planning its future growth and development. Certain trends, however, point the way toward both immediate and long-range objectives.

University policy has clearly defined the function of the University Extension Division to be chiefly administrative in nature. It has, through the years, come to be regarded as the agency of the University for the organization and promotion of educational programs, both formal and informal, not provided for in the regular budget but which could be financed through special grants or revenue-producing services. Such pioneering and experimentation, frequently in new fields of educational endeavor, has often resulted in the adoption by resident departments of new course offerings and the modification of others. The Division should, no doubt, continue to serve as a clearing house agency for the implementation of new ventures in University education, especially when these are set up to meet the needs of both resident and non-resident students.

It is assumed that there will always be a demand for off-campus courses carrying academic credit. The number of part-time, adult students has increased by the hundreds with the return of men and women who served in the armed forces and who are eligible for educational benefits provided by the "G I Bill of Rights." Extension class instruction and correspondence courses are, in many instances, the only means whereby veterans may work at home and at the same time continue their college education. The organization in all parts of the State of Col-

lege Centers may prove to be one of the best means of solving the current pressures for college education from veterans and from non-veteran high school graduates. Such instruction must be closely integrated with resident instruction so that University standards will be maintained. Extension teaching has, unfortunately, been thought of by some college and university professors and administrators as being outside the realm of "academic respectability." Yet, those who have had extension teaching experience know that mature adult students, whose study is usually highly motivated, are often able students. They respond favorably to and appreciate good teaching. The quality of both extension class instruction and correspondence instruction must be second to none. Non-credit courses, likewise, must be of the highest quality since they, too, represent the University.

Other well established extension services, such as Library Extension, Community Drama, Music, Lectures, Art, High School Activities, and Short Courses and Institutes, will need to be strengthened and continued indefinitely so long as these services are adjusted to modern trends in education and changing community needs. The policy of cooperating educationally with organized groups has proven successful and should be expanded to include a greater variety of interests and organizations.

The new policy of planning off-campus work in teacher education as a part of the University's total program of teacher education is both sound and progressive. The Department of Education has a special responsibility to maintain close working relationships with the schools, the State Department of Public Instruction, and educational organizations.

It seems clearly apparent that the greatest opportunity for enlarging University services to the people lies in the direction of what may be called informal adult educational activities.

Non-credit courses, public forums, discussion groups, radio programs, reading and study guides, and greatly increased utilization of the new tools for learning such as motion pictures, film strips, recordings, and other audio-visual aids, will undoubtedly become leading forms of University Extension in the immediate future. The Institute of Government has been unusually successful in the development and use of informal methods of instruction with adult groups. Its publications and techniques of adult education with governmental officials and lawyers are indicative of the possibilities for service open to the University with other lay and professional groups.

The University of North Carolina has always identified itself with movements by citizens of the State for the improvement of the health, welfare, education, recreation, and the economic development of the people. Faculty members, students, and University alumni are frequently among the leaders of such efforts and, over the years, they have exerted a tremendous influence toward securing a higher standard of living in North Carolina. Academic freedom has been maintained, not without struggle; and freedom of speech, assembly, and publication are the priceless heritage of the institution. These freedoms must be fought for continuously if it is to be worthy of the name "University." And, in keeping them, it is of the utmost importance that the University take the initiative and participate with the people in their struggle for freedom, whether it be social, political, intellectual, or economic. If public enlightenment is the key to intelligent social action, as most of our leading thinkers proclaim it to be, then it follows that the continuous education of adults is one of the most important, if not *the* most important, function of public education. Therefore, the University with all of its resources in leadership and facilities for promoting education has a responsibility to make them available to

the people, in order that they may be aided in the building of better homes, better communities, and a better world.

The Communication Center

One of the most promising recent developments in University Extension at the University of North Carolina is the Communication Center. Eventually it will include a frequency modulation educational radio station (with a state-wide network of similar stations), a motion picture production studio, a photographic laboratory, an experimental television studio, and recording studios. It will serve as a teaching as well as a production center. But when it begins broadcasting radio programs, telecasting, and distributing audio-visual aids and other media of communication to all parts of the State, and beyond, the Center will, in time, supplant many of the present forms of extension and play perhaps the leading role in providing adult educational opportunities for the people of North Carolina. The ground work is now being carefully laid for what promises to become an outstanding center in this region of the United States for the communication of ideas by means of the latest technical and scientific discoveries and mechanical aids to learning.

Workers Education

Mention has been made in Chapter VI of the beginnings of special extension services to business and industry. Almost simultaneously, there is being planned a cooperative educational program with labor. An Advisory Committee on Workers Education was appointed in 1945, consisting of representatives of the North Carolina Federation of Labor, the Congress of Industrial Organizations, the Standard Railroad Brotherhoods, and each unit of the University of North Carolina. In the spring of 1946 an Institute of Industrial Relations was set up at Chapel

Hill, as a part of the University Extension Division, through which programs of workers education are now being conducted.

Requests from labor unions for educational services are rapidly increasing. During recent months a number of leadership training institutes have been held at the University in cooperation with various labor unions in the State and the region. There is ample evidence of a real need on the part of local union officials and members for educational assistance and for training in labor history, law, economics, collective bargaining, public speaking, parliamentary procedure, community organization, government, and recreation.

The technique of workers education calls for skilled leadership. Hence the future of this phase of University Extension will depend very largely upon the ability of the University to provide competent direction and to employ teachers who are qualified to work with labor in the local community.

Workers education is both a challenge and an opportunity to the University to serve large numbers of citizens and taxpayers through their own organizations. In general, it may be said that these groups have had little contact with their State University and that they have every right to expect it to assist them in solving their educational problems. Historically, labor has been one of the leading supporters of public education in the United States. Americans have much to learn from the experience of workers education in Great Britain where government subsidies help defray the cost of the program which is actively supported by Oxford and Cambridge Universities. Many of the leading universities in this country, including Harvard, Wisconsin, Cornell, Rutgers, and California, have conducted educational services with labor for a number of years.

At the present time, plans are being made nationally to request the federal government to appropriate funds for labor education which would be channelled through the Department

of Labor to the state departments of labor and to the universities. Such a program would be for labor, in principle at least, comparable to the Agricultural Extension Service for farmers.

Cultural and Recreational Life

Another trend of University Extension is that of greater activity and participation in the cultural and recreational life of the State. Chapel Hill has always been a center of music, art, drama, philosophy, creative writing, and natural beauty. People visit the University by the thousands each year. The Planetarium, gift of a University alumnus, John Motley Morehead, will attract thousands more and afford them unusual opportunity to see and to understand the wonders of the universe.

The imprint of the University upon the cultural and recreational life of the people is being made more significant by means of its leadership and encouragement of various state-wide activities that reach even into the remote corners of North Carolina. Notable have been the contributions of University faculty and staff members to the North Carolina Recreation Commission, the North Carolina Symphony Society, the Roanoke Island Historical Commission, the Friends of Person Hall Art Gallery, the North Carolina Library Association, the Citizens Library Movement, the North Carolina State Art Society, the North Carolina State Literary and Historical Association, the North Carolina Folklore Society, and many other organizations engaged in developing the cultural life of the State through music, art, drama, libraries, folklore, and wholesome recreational activities.

Leadership and Teaching Materials

With the inevitable expansion of adult education programs there will fall upon the University the responsibility of assuming its share of the task of training leaders and teachers, and of

preparing new and better teaching materials. There is now, and has been, a scarcity of both good teachers and literature in the field of adult education. The future of adult education calls for able administrators, teachers, writers, discussion leaders and technicians, as well as teaching aids including guide books, text books, films, recordings, film strips, and other material suitable for adults. The resident departments of the University should give immediate attention to this problem and the Extension Division should be alert in assisting communities in the training of adult education teachers and in supplying needed teaching materials.

Another challenge to University Extension is that of providing leadership in community organization for adult education. This involves the all important matter of intelligent community planning and the integration of adult education with the total educational program, and with the life of the community.

It is obvious that the University must maintain continuous relationships with state, regional, national, and international adult education organizations in order to keep our leaders informed and to share in the planning and growth of the movement.

Plans for regional training programs and for the exchange of adult education leadership among the states in the South are already under way. The services of specialists from other sections of the country will be utilized, as they have been in the past, by the University and by state and local agencies of adult education.

Research Interpretation

A new development closely related to the Extension Division and having important implications for adult education is the Division of Research Interpretation established in 1946 in the Institute for Research in Social Science. Research is sig-

nificant only to the extent that it makes some contributions to the enrichment of living. The processes for systematically channelling results of research to the people who need the information generally have not been identified and used. These processes, in both their discovery and application, open a fertile field of inquiry and service for social science. This is the task to which the Division of Research Interpretation devotes its efforts.

The Division, while adhering to a prime objective of personnel training in its area of interest, features four major activities:

1. Studies are conducted to determine the accessibility and extent of use and effectiveness of various media of communication, *e.g.*, newspapers, films, magazines, radios, library services, pamphlets, personal contacts, community activities. Also, studies are developed to ascertain the best procedures for effectively contacting various socio-economic groups. Graduate asssitants are supervised in research in this field.
2. A research translation service is conducted which (a) on request, analyzes the adequacy of educational materials and suggests procedures for their improvement; (b) develops and evaluates written and visual techniques for presentation of difficult subject matter and concepts; and (c) conducts training clinics in translation techniques for personnel of public and private agencies. Graduate assistants receive experience and supervision in this field.
3. A training program in unified regional and community development is offered through collaboration with and assistance to appropriate University departments in (a) guiding a special program of study on both the graduate and undergraduate levels; (b) conducting special institutes and workshops, both on campus and off, for news-

paper editors, ministers, public health personnel, public housing officials, etc. One part of this effort involves securing in-service assistance for community leaders, *e.g.*, those mentioned above, so that a limited number of *demonstration areas* are developed. Graduate assistants receive experience and do supervised research in this field.

4. Experiments in *applied social science* are directed toward improvement of living through resource development, with special attention to some outstanding need in the area chosen. Graduate assistants also work in this field.

The Division program is set up so that qualified graduate students may, by assuming part-time staff positions, receive supervised work-experience in Division activities. Graduate study is thus combined with a specific program responsibility. In addition, a limited number of fellowships are provided for the staff assistants. The Division, while drawing widely on faculty members in other parts of the University, has a central staff including a director, three program assistants, and secretarial personnel.

"All-University" Extension

The resources of each of the three units of the University of North Carolina should be made readily available to all the people of the State. This calls for a high degree of coordination and administration of University Extension. The present Directorate of Extension has been successful in establishing general policies, in promoting cooperative relationships in extension work, and in eliminating duplication of effort. Each institution has retained autonomy of control and freedom of action within certain agreed-upon limitations and special fields of activity. There remain, however, great possibilities for united services and united action. Through careful planning and direction,

the University should be able to approach local groups of people as one institution and arrange to offer "All-University" services. Certain types of extension work might be conducted more effectively and become more beneficial to the people if the services of faculty members of each unit were utilized as, for example, in a state-wide program of adult education in international relations, or a program of consumer education, or perhaps one of resource-use education.

In order that citizens living in small farm communities and rural areas may receive broader educational services from their State University, it seems highly desirable that there should be greater cooperation and coordination between the Agricultural Extension Service and the University Extension Division representing so-called general extension services. Likewise, better balanced programs of vocational and cultural or general adult education need to be worked out.

Public forums and discussion programs for farmers, industrial workers, business men and women, civic and social organizations, and other groups could be conducted in all parts of the State under University leadership and on practically any topic of public interest. The authorative information possessed by members of the faculties of the consolidated University has never been fully utilized or adequately presented to the people. This and other resources of the institution should be made available to increasingly larger numbers of citizens by means of radio programs, publications, library services, audio-visual aids, etc., as well as through personal contacts such as lectures, group discussions, conferences, class instruction, and other activities.

The opportunities for adult education, under University auspices, are limited only to the foresight, imagination, and organizing skill of administrators of University Extension. Financial considerations, important as they may be, are secondary to alert, vigorous leadership and to the cooperation of University per-

sonnel. Many adult education programs may be expected to become partially self-supporting. Others, like radio, will have to be financed (or subsidized) by either state or private funds, or both. The public has demonstrated an active interest in such educational services and a willingness to support them through both taxation and the payment of fees. Federal aid for adult education, including some forms of University Extension, is not unlikely in the near future. It therefore becomes a matter of major concern to the University to plan intelligently and rationally for the expansion and development of University Extension if this function of the University is to be unimpaired and its service to the people of the State is to become more significant socially, economically, and spiritually.

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UNIVERSITY OF NORTH CAROLINA EXTENSION BULLETIN

VOL. XXVI SEPTEMBER, 1946 No. 2

AUDIO-VISUAL AIDS TO SCHOOLS, COLLEGES, CHURCHES, AND ADULT STUDY GROUPS

BUREAU OF VISUAL EDUCATION
SWAIN HALL
TELEPHONES 3216 — 4251
CHAPEL HILL, N. C.

Library of 16 mm. Educational Films, Lantern Slides, and Classroom Recordings

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VOL. XXVI SEPTEMBER, 1946 No. 2

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BUREAU OF VISUAL EDUCATION
SWAIN HALL
TELEPHONES 3216-4251
CHAPEL HILL, N. C.

Announcements for 1946-47 School Year

BUREAU OF VISUAL INSTRUCTION
Extension Division
UNIVERSITY OF NORTH CAROLINA
Chapel Hill, N. C.
1946

FOREWORD

It is the purpose of the Bureau of Visual Education, a Department of the Extension Division, of the University of North Carolina to place the Audio-Visual Aids at the disposal of the schools and other educational and civic agencies on a cost basis. The receipts from rental charges will be used to operate the service and to add new films.

Primarily the visual education services are designed to supplement classroom instruction and to aid in general education. Consequently, aids are being selected and made available that will fit into the pattern of the educational program of the state.

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GENERAL INFORMATION

All motion pictures listed in this catalog and distributed by the Bureau are of the 16 mm. size. These films are on cellulose acetate or safety stock. This type of film is non-inflammable and no booth is required for its projection.

SOUND FILMS CANNOT BE USED ON MOST SILENT PROJECTORS. All silent films, however, can be used on a sound projector. Each 400-foot reel of sound film requires about 11 minutes for projection. The same length of silent film requires about 15 minutes.

Slides listed are "Standard Size," 3¼ by 4 inches and 2 by 2 inches.

It is to be noted that the rental price is based upon unit values assigned to each film, set of slides, and recordings. The unit value is given for each listing.

All films are classified according to the Dewey Decimal Number System and corresponds to the numbers used in the H. W. Wilson Educational Guide.

HOW TO ORDER FILMS

1. Films, slide sets, and transcriptions should be ordered as the titles appear in the catalog. In ordering films it is well to indicate your choice of sound or silent as the same titles are sometimes used for both.
2. Orders may be sent in at any time. Alternate dates and titles are desirable, especially when the order is a "RUSH ORDER."
3. Many school people have found it advantageous to order a year's or a semester's list of films in advance. Remember that you are more likely to get the film desired on a certain date if you order early. The Bureau owns duplicate prints of a number of films but it is impossible to have sufficient copies of all films to accommodate all users at one time.
4. When several teachers in one school desire to order materials they should order in the name of just one person, preferably the Principal. Likewise, when several schools are operating under one board of education and the account is to be paid by one check, drawn by the Board, this fact should be noted on the order with full instructions as to the proper administrative office to be billed.
5. Club plans for rentals offer a considerable savings to the school. See page 7 for rental fees and Club plans.

REGULATIONS COVERING USE OF VISUAL AIDS

1. Film users pay return transportation charges. Please return all films by PREPAID PARCEL POST.
2. All users are sent a booking slip which indicates the date the material is to be used and date to be returned to the Bureau. Before a shipment is held overtime, permission must be requested by telephone or telegraph. Many films are booked for constant use, therefore, if the user holds a shipment without permission, the next user will not get his films on time.
3. All film users and operators should read "Suggestions to Operators of Motion Picture Equipment."
4. Films or other visual aids may not be loaned to other institutions or individuals by the original renter without the special consent of the Bureau.
5. Users are required to pay for cancellations sent in after material has been shipped.

SUGGESTION TO OPERATORS OF CLASSROOM MOTION PICTURE EQUIPMENT

FILM DAMAGE IS COSTLY! A few simple precautions will help reduce such damage to a minimum and keep film in first class condition. *Study with care the manual of instruction published and furnished by the manufacturer of your machine.* For information on other types of projectionist's manuals and handbooks write this Bureau.

BEFORE THREADING

1. Clean both aperture plates thoroughly. The smallest amount of dirt on either plate may seriously scratch a film.
2. Follow with care the manufacturer's instructions as to proper oiling. Apply *very small* quantities of oil, but OFTEN.
3. A sound projector will project either sound or silent films, but most silent projects will project *only silent film.*
4. Be sure the take-up reel is not bent. Film which rubs on the edges of the reel will become rough and weakened.

THREADING

1. Use care in placing the film over the sprockets. Sprocket teeth, if not properly meshed with sprocket holes in the film, will punch holes of their own. If force is required to close the clamp which fits over the sprocket, the film and teeth are not properly meshed and damage will result.

2. In most projectors it is necessary to open the aperture gate when threading. Here too, it is important that the film be placed in the precisely correct position before the "gate" is closed. If force is necessary to close the "gate" the film is probably not in proper position. After closing the "gate," pull up on the loop to see if film passes the aperture smoothly. If it does not, open the "gate" and re-set the film in its track.

3. A loop must be left both above and below the aperture or "gate." Read manufacturer's instructions regarding the correct threading of your machine.

4. A good test for proper threading is to turn the mechanisms by hand and see if the film is meshing properly before starting the projector.

OPERATION

1. In operation the operator should familiarize himself with the sound of his projector. Unusual sounds warn the alert operator that the projector may be damaging film. The noise accompanying serious damage is usually audible and sometimes very loud.

2. An almost infallible precaution is to feel the film lightly as it enters the projector and again as it leaves. If the film is leaving the machine with rough tears or sprocket punches or torn sprocket holes, the machine should be stopped immediately until the cause of the damage is discovered and remedied.

3. If a film is damaged during showing do not attempt to repair it or reshow it, unless you have proper equipment for making repairs and operators trained in making such repairs. Otherwise, return the film as it is with all the damaged portion.

4. Please do not rewind film after last showing before returning to the Bureau. Return the film as it comes off on your take-up reel and keep the original reel. Each school should own at least one 400-foot, one 800-foot, one 1200-foot, and one 1600-foot reel. Then it will not be necessary to rewind film. This will save your time and the time of the shipping clerk in the Bureau.

RENTAL FEES

FOR ALL AUDIO-VISUAL AIDS

(Classroom recordings, films, and slides)

NOTE: The Bureau pays transportation charges to the user, and user pays return postage. All Aids are for the Subscriber's use exclusively.

NOTE: A ten-cent per unit increase on Audio-Visual materials has been made this year to cover an all-risk insurance policy. It is no longer necessary for the user to insure return shipments.

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One day's use of Audio-Visual Aids	$ .70 per unit
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371 Teaching											
Tips for Teachers	sd	20					x	x	I	3	113
371.33 Visual Education											
Teaching With Sound Films	sd	10					x	x	I	3	110
Using the Classroom Film	sd	22					x	x	I	3	115
371.42 Vocational Guidance											
Aptitudes and Occupations	sd	20				x	x		I	5	34
Choosing Your Vocation	sd	10				x	x		I	3	45
Finding Your Life's Work	sd	22			x	x	x		I	5	59
371.7 School Lunches											
Kids Must Eat	sd	15	x	x	x	x	x	x	GI	1	72
372 Elementary Education											
We Discover the Dictionary	sd	10	x	x					I	3	119
372.4 Reading											
Speeding Your Reading	sd	11			x	x	x	x	I	3	105
372.5 Writing											
Penmanship Improver	sd	10		x	x	x		x	I	3	89
378 Colleges and Universities											
Negro Colleges in Wartime	sd	8			x	x	x	x	GI	1	92
Campus on the March	sd	19			x	x	x	x	GI	2	42
379 Public Schools											
Pop Rings the Bell	sd	23						x	GI	4	92
379.173 Rural Schools											
Living and Learning in a Rural School	sd	25					x	x	I	3	76

FILM CLASSIFICATION * Indicates Color Film	si-silent sd-sound	Time in min.	GRADE LEVEL Prim.	Elem.	Jr. H. S.	Sr. H. S.	College	Adult	I-Instructional GI-General Int.	Unit Value	Description Page Number
Village School	sd	12			x	x		x	I	1	117
379.8 Schools in South America											
Schools to the South	sd	12		x	x	x	x	x	GI	1	101
379.89 Schools in Uruguay											
Young Uruguay	sd	18		x	x	x		x	GI		124
380 Commerce. Transportation											
Development of Transportation	sd	10		x	x	x	x		I	3	52
385 Railroads											
Passenger Train	sd	11	x	x	x	x			I	3	88
Right of Way	sd	7			x	x	x	x	GI	1	98
386 Inland Navigation											
Boats	sd	10	x	x	x				I	3	38
Canals of England	sd	22			x	x			I	5	42
Flatboatmen of the Frontier	sd	10		x	x	x			I	3	60
Transportation on the Great Lakes	sd	11		x	x	x			I	3	114
387 Ships											
Anne Learns About Cargo Boats	si	10	x	x					I	1	33
Lake Carrier	sd	8		x	x	x	x	x	I	1	73
Ocean Liners	si	15		x	x	x	x		I	1	84
394 Holidays. Festivals											
Bounteous Earth	sd	9				x	x	x	GI	1	39
Fiestas of the Hills	sd	10				x	x	x	GI	1	57
Merry Christmas	sd	10	x	x	x				GI	3	73
Wee Anne's Christmas	si	15	x	x					GI	1	120
500 SCIENCE											
520 Astronomy											
Exploring the Universe	sd	10			x	x	x		I	3	56
523.2 Solar System											
Solar Family	sd	10			x	x	x		I	3	103
523.3 Moon											
Moon, The	sd	10			x	x	x		I	3	80
525 Earth											
Earth in Motion	sd	10			x	x	x		I	3	54
525.5 Seasons											
Earth and its Seasons	sd	10		x	x	x			I	3	54
531 Energy											
Energy and its Transformations	sd	10			x	x	x		I	3	55
533 Air. Aerodynamics											
Atmosphere and its Circulation	sd	11			x	x	x	x	I	3	35
Atmospheric Pressure	si	15			x	x	x		I	1	35
Theory of Flight	sd	11			x	x	x		I	3	111
534 Sound											
Fundamentals of Acoustics	sd	10			x	x			I	3	63
Sound Recording and Reproduction	sd	10				x	x	x	I	3	104
Sound Waves and Their Sources	sd	10			x	x	x		I	3	104
535 Light											
Light Waves and their Uses	sd	10			x	x	x		I	3	75
536 Heat											
Distributing Heat Energy	sd	11			x	x	x		I	3	53
536.7 Thermodynamics											
Fuels and Heat	sd	11			x	x	x		I	3	63

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Thermodynamics	sd	11				x	x		I	3	111
537 **Electricity**						x					
Electrostatics	sd	10			x	x	x		I	3	55
Story of Electricity	sd	11			x	x			I	3	107
538 **Magnetism**											
Electrodynamics	sd	10			x	x	x		I	3	55
Magnetic Effects of Electricity	si	15			x	x	x		I	1	76
540.9 **History of Chemistry**											
Historical Introduction to the Study of Chemistry	si	15			x	x	x		I	1	67
541.2 **Electrons. Atomic Theory**											
Electrons	sd	10			x	x	x		I	3	55
Molecular Theory of Matter	sd	10			x	x	x		I	3	80
Secrets	sd	4		x	x	x	x	x	GI	1	101
541.3 **Physical Chemistry**											
Catalysis	sd	10			x	x	x		I	3	43
Velocity of Chemical Reactions	sd	10				x	x		I	3	116
541.34 **Colloids**											
Colloids	sd	10			x	x	x		I	3	47
541.37 **Electrochemistry**											
Electrochemistry	sd	10			x	x	x		I	3	54
542 **Experimental Chemistry**											
Oxidation and Reduction	sd	10			x	x	x		I	3	87
549 **Quartz**											
Brazilian Quartz Goes to War	sd	10		x	x	x	x	x	GI	2	40
551 **Physical Geology**											
Earth's Rocky Crust	sd	11			x	x	x		I	3	54
Our Earth	sd	10			x	x			I	3	86
551.2 **Earthquakes. Volcanoes**											
Volcanoes in Action	sd	10			x	x	x		I	3	117
551.3 **Erosion**											
Formation of Soil	si	15		x	x	x	x		I	1	62
Wearing Away of the Land	sd	10			x	x	x		I	3	119
Work of the Atmosphere	sd	11			x	x	x		I	3	123
551.31 **Glaciers**											
Geological Work of Ice	sd	11			x	x	x		I	3	64
White Flood	sd	20		x	x	x	x	x	GI	3	121
551.4 **Surface Features of the Earth**											
Ground Water	sd	11			x	x	x		I	3	65
Mountain Building	sd	11				x	x		I	3	81
551.48 **Rivers**											
Work of Rivers	sd	11			x	x	x		I	3	124
Work of Running Water	sd	10			x	x	x		I	3	124
551.5 **Meteorology**											
Flood Weather	sd	30			x	x	x	x	GI	2	60
Weather	sd	10			x	x	x	x	I	3	119
551.57 **Ice. Clouds**											
Clouds	sd	11			x	x	x	x	I	1	46
553.6 **Earthly Economic Minerals**											
Sulphur	si	20			x	x	x	x	GI	1	108
*Sulphur and its Compounds	sd	10				x			I	5	108
560 **Paleontology**											
Lost World	si	15			x	x	x		GI	1	76
575.1 **Heredity**											
Heredity	sd	10			x	x	x	x	I	3	66

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580 Botany											
Wizards of Svalof	sd	14				x	x	x	I	2	122
581 Physiologic Botany											
Green plant	si	15			x	x	x		I	1	65
Leaves	sd	10		x	x	x	x		I	3	74
Plant Growth	sd	10		x	x	x	x		I	3	91
Reactions in Plants and Animals	sd	11			x	x	x		I	3	96
Roots of Plants	sd	10			x	x	x		I	3	99
Seed Dispersal	sd	10			x	x	x		I	3	101
581.5 Insectivorous Plants											
Plant Traps	sd	10			x	x	x		I	3	91
582.13 Flowers											
Dodder	sd	10		x	x	x	x		I	3	53
Flowers at Work	sd	10		x	x	x	x	x	I	3	60
From Flower to Fruit	si	15		x	x	x			I	3	62
*Growth of Flowers	sd	11			x	x	x		I	5	66
589.2 Fungi											
Fungus Plants	sd	10		x	x	x	x		I	3	63
Mold and Yeast	si	8		x	x	x	x		I	1	79
589.95 Bacteriology											
Bacteria	si	12		x	x	x			I	1	36
590 Zoology											
Animal Life	sd	10		x	x	x			I	3	33
591.5 Habits and Behavior of Animals											
Adventures of Bunny Rabbit	sd	11	x	x	x				I	3	31
Adventures of Peter	si	12		x	x				I	1	31
*African Fauna	sd	12		x	x	x	x	x	I	4	31
Animals of the Zoo	sd	10	x	x					I	3	33
Bear and its Relatives	sd	13	x	x					1	5	36
Black Bear Twins	sd	11	x	x	x				I	3	38
Common Animals of the Woods	sd	11	x	x	x	x			I	3	47
Elephants	sd	11	x	x	x	x			I	3	55
Gray Squirrel	sd	11	x	x					I	3	65
*Realm of the Wild	sd	28	x	x	x	x	x	x	GI	2	96
Regulated Deer-Hunting	sd	20			x	x	x	x	I	2	97
Vanishing Herds	sd	14		x	x	x		x	GI	2	116
Wee Anne Visits the Zoo	si	15	x	x	x				I	1	120
591.57 Means of Protection											
How Nature Protects Animals	sd	10		x	x	x	x		I	3	69
591. 92 Marine and Fresh Water Fauna											
Beach and Sea Animals	sd	10		x	x	x	x		I	3	36
Pond Insects	sd	10			x	x	x		I	3	92
Tiny Water Animals	sd	10				x	x		I	3	113
594 Mollusks											
Oysters	si	15			x	x	x		I	1	87
595.4 Spiders											
Spiders	sd	10			x	x	x		I	3	105
595.7 Insects											
Aphids	sd	10		x	x	x	x		I	3	34
Beneath Our Feet	sd	10			x	x	x		I	3	37
Microscopic Mysteries	sd	10		x	x	x			I	3	79
595.73 Termites											
Block That Termite	sd	20			x	x	x	x	GI	2	38
595.77 Flies											
House Fly	si	15		x	x	x	x		I	1	69
House Fly	sd	10			x	x	x	x	I	3	68

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595.78 Butterflies. Moths											
Butterflies	sd	10		x	x	x	x		I	3	41
Moths	sd	10		x	x	x			I	3	81
595.79 Bees											
Honey Bee	sd	11			x	x	x	x	I	3	68
597 Fishes											
Sunfish	sd	10		x	x	x	x	x	I	3	108
597.8 Toads. Frogs											
Frog, The	sd	10		x	x	x	x		I	3	62
598.1 Reptiles											
Snapping Turtle	sd	11		x	x	x			I	3	103
598.2 Birds											
Birds of Prey	sd	11		x	x	x	x		I	3	37
*Birds of the Dooryard	sd	10	x	x	x	x	x	x	I	5	37
High Over the Border	sd	20			x	x	x	x	GI	2	67
*How Birds Feed Their Young	si	6		x	x	x	x	x	I	3	69
*Realm of the Wild	sd	28	x	x	x	x	x	x	GI	2	96
Robin Red Breast	sd	11	x	x	x				I	3	99
Some Friendly Birds	si	15		x	x	x	x		I	1	104
Thrushes and their Relatives	sd	11		x	x	x	x	x	I	3	112
Water Birds	sd	11		x	x	x			I	3	118
600 USEFUL ARTS											
610.7 Nursing											
Army Nurse	sd	18		x	x	x	x	x	GI	2	35
Home Nursing: Bed Bath	si	8		x	x	x			I	1	68
Home Nursing: Routine Procedures	si	15		x	x	x			I	1	68
Home Nursing: Special Procedures	si	12		x	x	x			I	1	68
Reward Unlimited	sd	10		x	x	x	x		GI	1	98
611 Anatomy											
Body Framework	si	15		x	x	x	x		I	1	39
Control of Body Temperature	sd	11			x	x	x	x	I	3	48
Muscles	si	15		x	x	x	x		I	1	81
612.1 Blood and Circulatory System											
Blood	si	12			x	x	x	x	I	1	38
Circulation	si	15			x	x	x	x	I	1	45
Circulatory Control	si	15			x	x	x		I	1	46
Heart and Circulation	sd	10			x	x	x		I	3	66
612.2 Respiration											
Breathing	si	15		x	x	x	x		I	1	40
Mechanisms of Breathing	sd	10			x	x	x		I	3	78
612.3 Digestion											
Alimentary Tract	sd	11			x	x	x		I	3	32
Digestion	si	15		x	x	x	x		I	1	52
Digestion of Foods	sd	10			x	x	x		I	3	52
612.4 Glands. Kidneys											
Endocrine Glands	sd	11				x	x	x	I	3	55
Work of the Kidneys	sd	11				x	x	x	I	3	123
612.6 Reproduction											
Ovulation of the Mammalian Egg	si	15				x	x		I	1	87
Reproduction Among Mammals	sd	10			x	x	x		I	3	97
612.7 Skin											
Skin, The	si	15		x	x	x			I	1	103

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613 Hygiene											
Body Defense Against Disease	sd	10			x	x	x		I	3	38
Keeping Fit	sd	10			x	x	x	x	GI	1	72
Posture	si	15		x	x	x			I	1	93
Posture and Exercise	sd	10			x	x	x	x	I	3	93
613.2 Food. Nutrition											
Food and Growth	si	15		x	x	x			I	1	60
Food for Fighters	sd	10		x	x	x	x	x	GI	1	61
Foods and Nutrition	sd	11				x	x	x	I	3	61
Fundamentals of Diet	sd	11			x	x	x		I	3	63
The Man Who Missed His Breakfast	sd	12		x	x	x	x	x	GI	1	111
*Something You Didn't Eat	sd	9		x	x	x	x	x	GI	1	104
Food Series-Vitamin B 1	si	15			x	x			I	1	61
Food Series-Vitamin D	si	15		x	x	x			I	1	61
Wartime Nutrition	sd	10			x	x	x	x	I	1	118
613.8 Nervous System											
Nervous System	sd	10			x	x	x		I	3	82
614. Public Health	sd										
Defending the City's Health	sd	10			x	x	x		I	3	50
614.4 Infectious Diseases											
*Defense Against Invasion	sd	10		x	x	x	x	x	GI	2	51
614.8 Safety. First Aid. Coast Guard											
Coast Guard Spars	sd	6			x	x	x	x	GI	1	46
First Aid: Care of Minor Wounds	si	5		x	x	x	x	x	I	1	59
First Aid: Carrying the Injured	si	5		x	x	x	x		I	1	59
First Aid: Control of Bleeding	si	12		x	x	x	x		I	1	59
First Aid: Control of Bleeding and Minor Wounds	si	15		x	x	x	x		I	1	59
First Aid: Life Saving	si	15		x	x	x	x		I	1	60
First Aid: Wounds and Fractures	sd	10			x	x	x	x	I	3	60
Safety at Home	si	6	x	x					I	1	100
Safety at Play	si	6	x	x					I	1	100
Safety Vacation	si	15		x	x				I	1	100
Street Safety for Primary Grades	si	8	x						I	1	108
614.84 Fire Protection and Prevention											
Fight That Fire	sd	10			x	x	x	x	I	3	58
Fireman, The	sd	11	x	x	x	x			I	3	59
Smoke	si	15			x	x		x	I	1	103
615.8 Special Remedies											
Accent on Use	sd	20				x	x	x	GI	2	31
616.2 Diseases of the Respiratory System											
Diptheria	si	15		x	x	x			I	1	52
Pneumonia	sd	11				x	x	x	I	3	92
616.24 Tuberculosis											
Another to Conquer	sd	22				x	x	x	GI	3	33
Behind the Shadows	sd	15			x	x	x	x	I	3	36
Cloud in the Sky	sd	18			x	x	x	x	GI	3	46
Goodbye, Mr. Germ	sd	14			x	x	x	x	I	3	64
Let My People Live	sd	15			x	x	x	x	GI	3	74
They Do Come Back	sd	17				x	x	x	GI	3	112
Tuberculosis: How It May Be Avoided	si	15		x	x	x	x		I	1	115
616.7 Feet											
Care of the Feet	sd	11		x	x	x	x	x	I	3	42

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Feet, The	si	15		x	x	x	x	x	I	1	57
616.9 General Diseases											
Accent on Use	sd	20				x	x	x	GI	2	31
Choose To Live	sd	11				x	x	x	GI	3	45
Magic Bullets	sd	30			x	x	x	x	I	2	76
Silent War	sd	10			x	x	x	x	GI	1	103
Story of Dr. Jenner	sd	10		x	x	x	x	x	I	3	107
Three Counties Against Syphilis	sd	19					x	x	GI	2	112
617.6 Teeth											
Care of the Teeth	si	15		x	x	x			I	1	42
How Teeth Grow	si	15		x	x	x			I	1	69
Teeth, The	sd	11			x	x	x	x	I	3	110
617.7 Care of the Eyes											
Eyes—Advanced	si	15				x	x	x	I	1	56
Eyes and Their Care	sd	10			x	x	x	x	I	3	56
Eyes—Elementary	si	15		x	x				I	1	56
Preventing Blindness and Saving Sight	si	20				x	x		I	1	94
619 Veterinary Medicine											
Livestock and Mankind	sd	11				x	x		GI	1	75
621 Mechanics. Machinery											
Industrial Revolution	sd	11			x	x	x	x	I	3	70
Simple Machines	si	15			x	x	x		I	1	103
Simple Machines	sd	11			x	x	x	x	I	3	103
621.13 Locomotives											
Steam Locomotive	sd	22			x	x	x	x	GI	2	106
621.31 Generation of Electricity											
Elements of Electrical Circuits	sd	11				x	x		I	3	54
Induced Currents	si	15			x	x	x		I	1	70
Series and Parallel Circuits	sd	11				x	x		I	3	101
621.312 Central Stations											
Water Power	sd	10				x			I	3	118
621.35 Storage Batteries											
Chemical Effects of Electricity	si	15			x	x	x		I	1	43
Primary Cells	sd	11				x	x		I	3	94
621.38 Communication. Signaling											
Railroad Signal	sd	15			x	x		x	GI	2	96
621.384 Radio. Electronics											
Receiving Radio Messages	sd	11			x	x	x	x	I	3	96
Sending Radio Messages	sd	11				x	x	x	I	3	101
Vacuum Tubes	sd	11				x	x		I	3	115
621.4 Gas and Oil Engines. Solar Engines											
Power Within	si	30			x	x	x		GI	1	94
621.5 Pneumatic Machinery. Refrigeration											
Principles of Refrigeration	sd	10			x	x	x		I	3	95
621.83 Gears											
Plain Indexing and Cutting a Spur Gear	sd	26				x	x	x	I	3	91
621.9 Machine Tools											
Cutting an External National Fine Thread	sd	12				x	x	x	I	3	49
Cutting Keyways	sd	15				x	x	x	I	3	50
Drilling, Boring and Reaming, Work Held in Chuck	sd	10				x	x	x	I	3	53

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Machine Maker	sd	10				x	x	x	I	3	76
Straddle and Surface Milling to Close Tolerances	sd	27		x	x	x	x	x	I	3	107
Straddle Milling	sd	17				x	x	x	I	3	108
Turning Work of Two Diameters	sd	14				x	x	x	I	3	115
622.33 Coal Mining											
Bituminous Coal	si	15				x	x	x	I	1	37
623.8 Ship Building. Submarines. Ships				x	x						
Day of Battle	sd	10				x	x	x	GI	1	50
Story of a Transport	sd	20			x	x	x	x	GI	1	106
626 Irrigation. Canals					x						
Irrigation, A Brief Outline	si	12							GI	1	71
Irrigation, Farming	sd	11		x	x	x			I	3	71
628.1 Water Supply				x	x						
City Water Supply	sd	11				x			I	3	46
Home on the Range	sd	10			x	x	x		GI	1	68
Purifying Water	si	15			x	x	x		I	1	95
*Water—Friend or Enemy	sd	10			x	x	x	x	GI	2	118
628.3 Sewage Disposal				x	x						
Sewage Disposal	si	15				x	x		I	1	102
629.13 Aeronautics				x	x						
An Airplane Trip	sd	11							I	3	33
Bomber	sd	10	x	x	x	x	x	x	GI	1	39
Building a Bomber	sd	20			x	x	x	x	GI	2	41
Cadet classification	sd	19			x	x	x	x	GI	2	41
*Combat America	sd	63			x	x	x	x	GI	4	47
Construction of a Light Airplane	sd	28			x	x	x	x	GI	2	48
Jap Zero	sd	20				x	x	x	GI	2	71
Parachutes for Safety	sd	20				x	x	x	GI	2	87
Paratroops	sd	9				x	x	x	GI	1	88
Problems of Flight	sd	11		x	x	x	x	x	I	3	95
Roads South	sd	20			x	x	x	x	GI	2	99
Target—Berlin	sd	17		x	x	x	x	x	GI	2	109
Wings of Youth	sd	19		x	x	x		x	GI	2	122
Wings Up	sd	22			x	x	x	x	GI	2	122
Winning Your Wings	sd	18		x	x	x	x	x	GI	2	122
629.2 Automobiles. Busses					x						
Bus Driver	sd	11							I	3	41
Rhapsody in Steel	sd	30	x	x	x	x	x	x	GI	3	98
Story of a Spark Plug	sd	27			x	x			GI	2	106
629.213 Safe Driving					x						
Highway Mania	sd	20				x	x	x	GI	3	67
630 Agriculture											
Farm Battle Lines	sd	10				x	x	x	GI	1	57
*Live at Home	sd	10				x	x	x	GI	1	75
630.6 Agricultural Clubs					x						
On the Road to Tomorrow	sd	10				x	x	x	GI	1	85
630.971 Agriculture in Canada					x						
Heritage	sd	17				x		x	GI	3	67
630.972 Agriculture in Cuba					x						
Five-C Clubs of Cuba	sd	11				x	x	x	GI	1	60
630.973 Agriculture in the U. S.					x						
Farmers Face the Future	sd	10				x	x	x	GI	1	57
630.983 Agriculture in Chile											
Fundo In Chile	sd	20		x	x	x	x	x	GI	2	63

FILM CLASSIFICATION * Indicates Color Film	si-silent sd-sound	Time in min.	GRADE LEVEL Prim.	Elem.	Jr. H. S.	Sr. H. S.	College	Adult	I-Instructional GI-General Int.	Unit Value	Description Page Number
631.1 Farm Economics											
Farmer at War	sd	10				x	x	x	GI	1	57
Hidden Weapons	sd	10			x	x	x	x	GI	1	67
Salt of the Earth	sd	18		x	x	x	x	x	GI	2	100
Truck Farmer	sd	11		x	x	x			I	3	114
Victory Harvest	sd	22	x		x	x	x	x	GI	2	116
631.18 Marketing of Farm Produce											
Fruits, Vegetables and Cooperation	sd	18			x	x	x	x	GI	2	63
631.3 Farm Machinery											
Power and the Land	sd	39				x	x	x	GI	2	94
Worst of Farm Disasters	sd	6			x	x	x	x	GI	1	124
631.4 Soils											
Blessings of Grass	sd	20			x	x	x	x	GI	2	38
Grassland	sd	10		x	x	x	x	x	GI	1	65
Harvest for Tomorrow	sd	27		x	x	x	x	x	GI	2	66
In Common Cause	sd	20			x	x	x	x	GI	2	70
Muddy Water	sd	9				x	x	x	GI	1	81
Rain on the Plains	sd	9				x	x	x	GI	1	96
Save the Soil	sd	11				x	x	x	GI	1	100
Terracing in the Northeast	sd	11				x	x	x	GI	1	110
Wise Land Use pays	sd	19				x			GI	1	122
632.7 Injurious Insects											
Control of Worms in Hogs	si	28				x	x		GI	2	48
Mormon Cricket	sd	22				x	x	x	GI	2	80
Planting and Care of Trees	si	15		x	x	x			GI	2	91
Six-Legged Saboteurs	sd	10		x	x	x	x	x	GI	1	103
White Fringed Beetle	sd	21				x	x	x	GI	2	121
632.77 Mosquitoes											
Life History of the Yellow Fever Mosquito	si	15		x	x	x	x		I	1	74
Mosquitoes	si	30			x	x	x		GI	2	80
Mosquito—Public Enemy	sd	10			x	x	x	x	GI	3	80
*Winged Scourge	sd	10		x	x	x	x	x	GI	2	122
633.1 Grains											
Corn Farmer	sd	11		x	x	x			I	3	48
*Grain That Built a Hemisphere	sd	10		x	x	x	x	x	GI	2	65
Story of Wheat	sd	11			x	x			I	3	107
Wheat Farmer	sd	11		x	x	x			I	3	121
633.3 Beans. Forage Crops											
Science and Agriculture	sd	11		x	x	x		x	I	3	101
634.3 Citrus Fruits											
Orange Grower	sd	10		x	x	x		x	I	3	85
634.7 Bananas											
About Bananas	si	15		x	x	x			I	1	31
634.9 Forestry											
Forest Ranger	sd	33		x	x	x	x	x	GI	2	61
Operation of a Forest Nursery	sd	10			x	x	x		GI	1	85
Pine Ways to Profit	sd	20			x	x	x	x	GI	2	91
Story of Canadian Pine	sd	30		x	x	x	x	x	GI	3	106
Strength of the Hills	sd	10			x	x	x	x	GI	1	108
*There's More than Timber in Trees	sd	33			x	x	x		GI	2	111
Timber Front	sd	20			x	x	x		GI	3	113
Tree of Life	sd	19		x	x	x	x		GI	2	114

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Trees to Tame the Wind	sd	13			x	x	x	x	GI	1	114
Vigilance for Victory	sd	5			x	x		x	GI	1	116
634.92 Forest Fires											
Stop Forest Fires	sd	10		x	x	x			GI	1	106
Your American Tragedy	sd	8			x	x		x	GI	1	124
635 Vegetable Gardening											
*Farm Garden	sd	22		x	x	x	x	x	GI	2	57
Garden for Victory	sd	8			x	x	x	x	GI	2	64
Grow Your Own	sd	20		x	x	x	x	x	GI	2	65
Saving the Garden Crop	sd	12		x	x	x	x	x	GI	1	100
636 Domestic Animals. Pets											
Animals in Modern Life	sd	10			x	x			I	3	33
Care of Pets	sd	11	x	x	x				I	3	42
Do Unto Animals	sd	21				x	x	x	I	3	53
Farm Animals	sd	10	x	x	x				I	3	57
636.1 Horses											
Horse, The	sd	11	x	x	x	x			I	3	68
636.2 Cattle											
Cattleman, The	sd	11	x	x	x	x	x		I	3	43
Junior Cattlemen	sd	11		x	x	x			GI	1	72
Spring Shows and Beef Cattle	sd	10				x		x	GI	1	105
636.3 Goats											
Goats	sd	11	x	x	x				I	3	64
636.4 Swine											
How to Grow Hogs	si	21				x	x	x	GI	1	69
Pork on the Farm	sd	21				x	x	x	GI	2	93
*Pig Projects Make Profits	sd	14			x	x	x	x	GI	2	90
636.5 Poultry											
Poultry—A Billion Dollar Industry	sd	28			x	x	x	x	GI	2	93
Poultry on the Farm	sd	10	x	x	x				I	3	93
636.7 Dogs											
*Out of the Heart	sd	11	x	x	x			x	GI	2	86
Shep, The Farm Dog	sd	11	x	x	x	x		x	I	3	102
Wee Anne's Dog, Sandy	si	15	x	x	x				GI	1	120
636.8 Cats											
Three Little Kittens	sd	10	x	x					I	3	112
637 Dairy and Dairy Products											
Bip Goes to Town	si	15		x	x	x		x	GI	1	37
Bip Goes to Town	sd	10		x	x	x		x	GI	1	37
Milky Way Out	sd	20				x	x	x	GI	2	79
More Milk	sd	11		x	x	x		x	GI	1	80
Quality Milk	si	10			x	x	x	x	GI	1	96
639 Fisheries											
Alaska's Silver Millions	sd	34		x	x	x	x	x	GI	3	32
Anne Visits Fish Harbor	si	5	x	x						1	33
New England Fishermen	sd	11		x	x	x	x		I	3	83
Shell Fishing	sd	11		x	x	x			I	3	102
641 Food											
Black Marketing	sd	11			x	x	x	x	GI	1	38
Food and Magic	sd	10			x	x	x	x	GI	1	60
World of Plenty	sd	45			x	x	x	x	GI	4	123
641.3 Meat											
Curing Pork Country Style	sd	15			x	x	x	x	GI	2	49
641.4 Canning and Preserving											
*Canning the Fruit Crop	sd	25		x	x	x	x	x	GI	2	42

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641.5 Cookery											
Principles of Cooking	sd	11			x	x	x	x	I	3	94
646 Clothing											
Clothing	sd	11			x	x	x		I	3	46
649 Care of Infants and Children											
Child Care—Bathing the Infant	si	15			x	x	x	x	I	1	44
Child Care—Feeding the Infant	si	15			x	x	x	x	I	1	44
*For Health and Happiness	sd	11			x	x		x	GI	2	61
651.3 Secretarial Work											
I Want to be a Secretary	sd	15				x	x		I	5	70
652 Typewriting											
Business Machines	si	12				x	x		I	1	41
Championship Typing	si	15				x	x		I	1	43
Know Your Typewriter	si	15			x	x			I	1	73
Tricks of Trade for Typists	si	15				x	x		I	1	114
660 Chemical Technology											
Chemistry and a Changing World	sd	11			x	x	x		I	3	43
661.6 Nitrates											
Atacama Desert	sd	20		x	x	x	x	x	GI	2	35
662.2 Explosives											
Handle With Care	sd	20				x		x	GI	2	66
662.6 Coal											
Story of Coal	sd	11		x	x	x		x	I	3	106
663 Beverages											
Coffee	si	15		x	x				I	1	46
Jerry Pulls the Strings	sd	38		x	x	x		x	GI	2	71
664 Foods—Frozen											
*Freezing Fruits and Vegetables	sd	16				x	x	x	GI	2	62
664.1 Sugar											
Beet and Cane Sugar	si	15		x	x	x	x		I	1	36
Sugar Refining Process	sd	30		x	x			x	GI	2	108
What's Happened to Sugar	sd	11		x	x	x	x	x	GI	1	121
664.8 Dehydration											
Dehydration	sd	17			x	x	x	x	GI	1	51
664.9 Preservation of Meat											
Meats With Approval	sd	17				x	x	x	GI	2	78
665 Fats and Oils											
*Out of the Frying Pan Into the Firing Line	sd	3	x	x	x	x	x	x	GI	1	86
Crops For Combat	sd	10			x	x	x	x	GI	1	49
665.5 Petroleum											
Evolution of the Oil Industry	si	45		x	x	x	x	x	GI	1	56
Producing Crude Oil	si	15		x	x	x	x		I	1	95
666.7 Bricks											
Making Paving Brick	sd	15			x	x	x		GI	2	77
669.1 Steel											
Story of Steel	sd	11			x	x			I	3	107
669.7 Aluminum. Nickel											
Aluminum	sd	9			x	x	x	x	GI	1	32
Aluminum-Fabricating Processes	si	19			x	x	x	x	GI	1	32
Nickel High-Lights	sd	34			x	x			GI	2	83
674 Lumbering. Forest Products											
Lumbering in the Pacific Northwest	si	15		x	x	x	x	x	I	1	76
*Wood for War	sd	8			x	x		x	GI	1	123
675 Leather											
Leather Work	sd	10			x	x	x	x	I	3	74

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Story of Leather	si	20		x	x	x			I	1	107
676 Paper											
Trees to Tribunes	sd	30		x	x	x	x		GI	2	114
677.2 Cotton											
Cotton at War	sd	17		x	x	x	x	x	GI	1	49
King Cotton	sd	19		x	x	x	x	x	GI	3	73
677.4 Silk											
Fashion's Favorite	sd	33				x		x	GI	1	57
678 Rubber											
For America We Save	sd	19			x	x	x	x	GI	2	61
Rubber	si	15		x	x	x	x		I	1	99
680 Handicraft											
Toys From Odds and Ends	sd	10	x	x				x	I	3	113
684 Woodwork											
Forest Treasures	sd	25		x	x	x	x	x	GI	2	62
Furniture Craftsmen	sd	11		x	x			x	I	3	63
Manual Training, Elementary	sd	10		x	x				I	3	77
690 Building											
Builders, The	sd	20			x	x			I	3	41
700 FINE ARTS											
709.73 Art in the United States											
*Patterns of American Rural Art	sd	11		x	x	x	x	x	GI	1	88
728 Domestic Architecture											
Shelter	sd	10		x	x	x	x		I	3	102
728.9 Farm Buildings											
Home Place	sd	32			x	x	x	x	GI	2	68
738 Pottery											
Pottery Making	sd	11		x	x	x	x	x	I	3	93
Tableware	si	15			x	x	x	x	I	1	109
739 Art Metal Work											
Metal Craft	sd	11			x	x	x	x	I	3	78
Plastic Art	sd	11		x	x	x	x	x	I	3	92
Silver	si	15			x	x			I	1	103
763 Lithography											
Modern Lithographer	sd	11			x	x	x	x	I	3	79
770 Photography											
Photography Fights	sd	13			x	x	x	x	GI	2	90
784 Vocal Music											
I Don't Want to Change the Subject	sd	4		x	x	x	x	x	GI	1	69
Music of the Nations	sd	10		x	x	x	x	x	GI	3	81
Old Time Ballads	sd	10			x	x	x	x	GI	3	85
Semper Paratus	sd	7			x	x	x	x	GI	1	101
Song Shorts	sd	9			x	x	x	x	GI	1	104
Star-Spangled Banner	sd	10		x	x	x	x	x	GI	1	106
785 Orchestral Music											
Symphony Orchestra	sd	10			x	x	x		I	3	109
*Youth Builds a Symphony	sd	26			x	x	x	x	GI	4	125
787 Stringed Instruments											
String Choir	sd	10		x	x	x	x		I	3	108
788 Wind Instruments. Bands											
Brass Choir	sd	10		x	x	x	x	x	I	3	39
Woodwind Choir	sd	10		x	x	x	x		I	3	123
789 Percussion Instruments											

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Percussion Group	sd	10		x	x	x	x		I	3	89
791.4 Moving Pictures											
March of the Movies—Reel 1	sd	30			x	x	x	x	GI	3	77
March of the Movies—Reel 2	sd	30			x	x	x	x	GI	3	77
791.5 Marionettes											
Marionettes—construction and Manipulation	sd	10		x	x	x			GI	3	77
791.6 Pageants											
Parade of Comic Balloons	si	15	x	x	x	x	x	x	GI	1	87
793.3 Dancing											
Dances of the Nations	sd	10				x			GI	3	50
796 Athletics and Outdoor Sports											
Play in the Snow	sd	11	x	x	x				I	3	92
796.32 Basketball. Volley Ball											
Chuck Taylor Fundamentals of Basketball	sd	10			x	x	x	x	I	3	45
796.33 Football											
Football Thrills of 1939	sd	10			x	x	x	x	GI	3	61
Football Thrills of 1940	sd	10			x	x	x	x	GI	3	61
Football Thrills of 1941	sd	10			x	x	x	x	GI	3	61
Touchdown Thrills of 1945	sd	11			x	x	x	x	GI	3	113
796.34 Tennis											
Davis Cup Tennis, 1936	si	12				x	x	x	GI	1	50
Davis Cup Tennis, 1937	si	12				x	x	x	GI	1	50
796.357 Baseball											
*Batting	sd	10			x	x	x	x	I	5	**
796.4 Gymnastics. Track Athletics											
Dashes, Hurdles and Relays	sd	22			x	x	x		I	3	50
Distance Races	sd	11			x	x	x		I	3	52
Jumps and Pole Vaults	sd	11			x	x	x		I	3	72
Weight Events	sd	11				x	x		I	3	120
796.9 Winter Sports											
Hot Ice (Hockey)	sd	21				x	x	x	GI	3	68
Wee Anne and the Snow Man	si	7	x	x	x				I	1	119
797.1 Boating											
Wee Anne Goes Sailing	si	10	x	x	x				I	1	119
797.2 Swimming											
Swim and Live	sd	20			x	x	x	x	GI	2	109
799.1 Fishing											
Brazil's Fishing School	sd	18			x	x	x	x	GI	2	40
800 LITERATURE											
822.3 Shakespeare											
Julius Caesar	sd	18			x	x	x	x	GI	3	72
Macbeth	sd	16			x	x	x	x	GI	3	76
Master Will Shakespeare	sd	11			x	x	x		GI	3	78
Romeo and Juliet	sd	40			x	x	x		GI	8	99
909 WORLD HISTORY											
909 World History											
News Parade—1937	sd	10				x	x	x	GI	2	83
News Parade—1938	sd	10				x	x	x	GI	2	83
News Parade—1939	sd	10				x	x	x	GI	2	83

**SEE Addenda

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News Parade—1940	sd	10				x	x	x	GI	2	83
News Parade—1941	sd	10				x	x	x	GI	2	83
News Parade—1943	sd	10				x	x	x	GI	2	83
U. S. News Review No. 5	sd	22		x	x	x	x	x	GI	2	115
910 DESCRIPTION AND TRAVEL											
912 Maps											
Airplane Changes Our World Map	sd	11			x	x	x	x	I	3	31
914.3 Germany											
Berlin	si	15			x	x			GI	1	37
914.38 Poland											
Mary Visits Poland	sd	12		x	x	x			I	3	77
*Picturesque Poland	sd	10			x	x	x	x	GI	2	90
Poland Forever	sd	18			x	x	x	x	GI	2	92
914.436 Paris											
Next Time We See Paris	sd	10		x	x	x	x	x	GI	1	83
914.7 Russia											
Children of Russia	sd	13	x	x	x	x			I	3	44
Report from Russia	sd	8				x	x	x	GI	1	97
Russia	si	15					x	x	GI	1	100
914.92 Netherlands											
Children of Holland	sd	11	x	x	x	x			I	3	44
Dutch Tradition	sd	27			x	x	x	x	GI	3	53
914.94 Switzerland											
Children of Switzerland	sd	11	x	x	x				I	3	44
915.1 China											
Children of China	sd	11	x	x	x	x			I	3	44
Here is China	sd	26	x	x	x	x	x	x	GI	3	66
People of Western China	sd	11		x	x	x		x	I	3	89
915.2 Japan											
Children of Japan	sd	11	x	x	x	x		x	I	3	44
Japan	sd	30		x	x	x			I	1	71
Our Enemy—The Japanese	sd	20			x	x	x	x	GI	2	86
915.6 Turkey											
Turkey	si	15			x	x	x	x	I	1	115
916.1 North Africa											
Backward Civilization	sd	22			x	x	x		I	3	36
916.2 Egypt											
Star and Sand	sd	20			x	x	x	x	GI	2	106
916.7 South Central Africa											
Watussi of Africa	sd	11		x	x	x	x	x	I	3	119
People of the Congo	sd	11		x	x	x	x		I	3	89
Pygmies of Africa	sd	22		x	x	x	x	x	I	3	95
917.1 Canada											
French-Canadian Children	sd	11	x	x	x	x			I	3	62
Industrial Provinces of Canada	sd	10		x	x	x	x	x	I	3	70
Maritime Provinces of Canada	sd	10		x	x	x	x	x	I	3	77
Pacific Canada	sd	10		x	x	x	x	x	I	3	87
Prairie Provinces of Canada	sd	10		x	x	x	x	x	I	3	94
917.2 Mexico											
Arts and Crafts of Mexico	sd	11		x	x	x			I	3	35
*Cuernavaca	sd	10			x	x	x	x	GI	2	49
Day is New	sd	10		x	x	x	x	x	GI	1	50
*Guadalajara	sd	18		x	x	x	x	x	GI	3	66
*Hand Industries of Mexico	sd	10		x	x	x	x	x	I	5	66

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Land of Mexico	sd	11		x	x	x	x		I	3	73
Mexican Children	sd	11	x	x	x				I	3	78
*Mexican Moods	sd	10		x	x	x		x	GI	2	79
Mexico	sd	20			x	x	x	x	GI	2	78
*Mexico Builds a Democracy	sd	20			x	x	x	x	GI	3	78
*Mexico City	sd	11			x	x	x	x	GI	2	78
*Patzcuaro	sd	11			x	x	x	x	GI	2	88
People of Mexico	sd	11		x	x	x	x	x	I	3	89
*Rural Life of Mexico	sd	11		x	x	x		x	I	5	99
*Tehuantepec	sd	10			x	x	x	x	GI	2	110
*Town in Old Mexico	sd	10			x	x	x	x	GI	2	113
917.26 Yucatan											
Line from Yucatan	sd	10		x	x	x	x	x	GI	1	75
*Veracruz	sd	18			x	x	x	x	GI	3	116
*Yucatan	sd	20			x	x	x	x	GI	3	125
917.28 Central America											
Central America	si	15		x	x	x			I	3	43
Central America (Caribbean)	sd	11		x	x	x	x	x	I	3	43
*High Spots of a High Country	sd	20			x	x	x	x	GI	3	67
*Hill Towns of Guatemala	sd	10			x	x	x	x	GI	2	67
Wooden Faces of Totonicapan	sd	10			x	x	x	x	GI	1	123
917.29 West Indies											
*Introduction to Haiti	sd	10			x	x	x	x	GI	2	70
West Indies	sd	10			x	x	x	x	I	3	120
917.295 Puerto Rico											
Democracy at Work in Rural Puerto Rico	sd	22			x	x	x	x	GI	2	51
Puerto Rico	si	15		x	x				I	1	95
917.3 United States											
Re-Creation	sd	33		x	x	x		x	I	2	97
*This Amazing America	sd	20			x	x	x	x	GI	4	112
917.4 New England											
North Eastern States	sd	11		x	x	x	x	x	I	3	84
917.47 New York State											
Mohawk Valley	si	15		x	x				I	1	79
917.5 Southeastern States											
Boone Trail	si	15		x	x				I	1	39
New South	si	15		x	x	x			I	1	83
Old South	si	15		x	x	x			I	1	85
Remnants of Frontier Life	sd	20			x	x	x	x	GI	4	97
Southeastern States	sd	11		x	x	x	x	x	I	3	104
917.53 Washington, D. C.											
I Pledge My Heart	sd	11			x	x			GI	1	69
Inside the White House	sd	10		x	x	x	x	x	I	3	70
Washington's—The Nation's Capital	sd	10		x	x	x			GI	3	118
917.55 Virginia											
Virginia—the Old Dominion	si	15			x	x			I	1	117
917.56 North Carolina											
*Along the Blue Ridge Parkway	sd	10		x	x	x	x	x	GI	2	32
*North Carolina—Variety Vacationland	sd	45		x	x	x		x	GI	1	83
*Winston-Salem	sd	13			x	x	x	x	GI	3	122
917.6 South Central States											
Southwestern States	sd	11		x	x	x	x	x	I	3	105

FILM CLASSIFICATION * Indicates Color Film	si-silent sd-sound	Time in min.	GRADE LEVEL Prim.	Elem.	Jr. H. S.	Sr. H. S.	College	Adult	I-Instructional GI-General Int.	Unit Value	Description Page Number
917.7 North Central States											
Middle States	sd	11			x	x	x		I	3	79
River, The	sd	31		x	x	x	x	x	GI	2	98
917.71 Ohio											
Ohio Travelogues—Part 12	sd	10		x	x	x	x	x	GI	1	84
Ohio Travelogues—Part 15	sd	10		x	x	x	x	x	GI	1	84
Ohio Travelogues—Part 17	sd	10		x	x	x	x	x	GI	1	84
917.8 Western States											
Northwestern States	sd	11		x	x	x	x	x	I	3	84
Rio Grande	si	15		x	x	x			I	1	98
917.86 Montana											
Glacier National Park	sd	10		x	x	x		x	GI	1	64
917.87 Wyoming											
Yellowstone National Park	si	15			x	x	x	x	I	1	124
Yellowstone National Park	sd	10			x	x	x	x	I	2	124
917.9 Pacific Coast States											
Bryce National Park	sd	15			x	x	x	x	GI	1	40
Zion National Park	sd	15			x	x	x	x	GI	1	125
Far Western States	sd	11		x	x	x			I	3	57
917.91 Arizona											
Arid Southwest	si	15		x	x	x	x		I	1	34
917.95 Oregon											
Oregon Country	si	15		x	x				I	1	85
917.97 Washington											
*Spokane and its Inland Empire	sd	45			x	x	x	x	I	4	105
917.98 Alaska											
Alaska	si	15		x	x	x	x		I	1	32
Alaska	sd	12		x	x	x			I	3	32
918 South America											
Americans All	sd	25	x	x	x	x	x	x	GI	2	32
Bridge, The	sd	30		x	x	x	x	x	GI	3	40
Buenos Aires and Montevideo	sd	10		x	x	x	x	x	GI	1	41
Continent of South America	si	15		x	x	x			I	1	48
*Our Neighbors Down the Road	sd	43		x	x	x	x	x	GI	4	86
*Pan-American Bazaar	sd	9				x	x	x	GI	2	87
*South of the Border with Disney	sd	40		x	x	x	x	x	GI	4	104
918.1 Brazil											
*Amazon Awakens	sd	35		x	x	x	x	x	GI	4	32
Belo Horizonte	sd	18		x	x	x	x	x	GI	2	37
Brazil	sd	11		x	x	x	x		I	3	39
Brazil (OIAA)	sd	10			x	x	x	x	GI	1	40
Brazil-Amazonian Lowlands	si	15		x	x				I	1	39
Brazil-Eastern Highlands	si	15		x	x	x			I	1	40
Sao Paulo	sd	20		x	x	x	x	x	GI	2	100
Southern Brazil	sd	20		x	x	x	x	x	GI	2	105
Wings Over Brazil	sd	15		x	x	x	x	x	GI	2	122
918.2 Argentine Republic. Patagonia											
Argentina	si	15		x	x	x			I	1	34
Argentina	sd	11		x	x	x		x	GI	3	34
Argentine Primer	sd	23		x	x	x		x	GI	2	34
South Chile	sd	18			x	x	x	x	GI	2	104
918.3 Chile											
Chile	si	15		x	x				I	1	45
Chile	sd	11		x	x	x		x	GI	3	45
Housing in Chile	sd	18		x	x	x	x	x	GI	2	69

FILM CLASSIFICATION * Indicates Color Film	si-silent sd-sound	Time in min.	GRADE LEVEL Prim.	Elem.	Jr. H. S.	Sr. H. S.	College	Adult	I-Instructional GI-General Int.	Unit Value	Description Page Number
918.4 Bolivia											
Bolivia	sd	20		x	x	x	x	x	GI	2	39
High Plain	sd	20		x	x	x	x	x	GI	2	67
La Paz	sd	20		x	x	x	x	x	GI	2	73
918.5 Peru											
Lima	sd	17		x	x	x	x	x	GI	2	75
Lima Family	sd	20		x	x	x	x	x	GI	2	75
Peru	si	15		x	x				I	1	90
Peru	sd	11		x	x	x		x	I	3	90
*Wealth of the Andes	sd	20		x	x	x	x	x	GI	3	119
918.6 Colombia. Ecuador. Panama											
Colombia	sd	10		x	x	x	x	x	GI	1	46
Colombia and Venezuela	sd	11		x	x	x	x	x	I	3	46
Colombia, Crossroads of the Americas	sd	27		x	x	x	x	x	GI	3	47
*Down Where the North Begins	sd	21			x	x	x	x	GI	2	53
Panama Canal	si	15		x	x	x	x		I	3	87
This is Ecuador	sd	20			x	x	x	x	GI	2	112
918.7 Venezuela											
*Venezuela	sd	10		x	x	x	x	x	GI	1	116
*Venezuela Moves Ahead	sd	40			x	x	x	x	GI	4	116
918.9 Paraguay. Uruguay											
Montevideo Family	sd	19		x	x	x	x	x	GI	2	80
Paraguay	sd	18		x	x	x	x	x	GI	2	88
919.69 Hawaiian Islands											
People of Hawaii	sd	11		x	x	x		x	I	3	89
Uruguay	sd	16		x	x	x	x	x	GI	2	115
919.8 Arctic Regions											
Eskimo Children	sd	10		x	x				I	3	56
921 INDIVIDUAL BIOGRAPHY											
921 Biography											
Carver, George Washington	sd	11			x	x	x		I	3	42
GEORGE WASHINGTON											
1—Conquering the Wilderness	si	10		x	x	x			I	1	64
2—Uniting the Colonies	si	10		x	x	x			I	1	64
3—Winning Independence	si	10		x	x	x			I	1	64
4—Building a Nation	si	10		x	x	x			I	1	64
Lincoln, the Pioneer	si	15		x	x	x			I	1	75
Lincoln, the Statesman	si	15		x	x	x			I	1	75
929.9 Flags											
Story of Our Flag	sd	10		x	x	x			I	3	107
930 HISTORY											
940.53 World War, 1939-1945											
Bombs Over Europe	sd	10				x	x	x	GI	1	39
Film Communique—1	sd	19				x	x	x	GI	3	58
Film Communique—2	sd	19				x	x	x	GI	3	58
Film Communique—3	sd	21				x	x	x	GI	3	58
Film Communique—4	sd	21				x	x	x	GI	3	58
Film Communique—5	sd	20				x	x	x	GI	3	58
Film Communique—7	sd	20				x	x	x	GI	3	59
Film Communique—8	sd	18				x	x	x	GI	3	59
Film Communique—9	sd	18				x	x	x	GI	3	59

FILM CLASSIFICATION * Indicates Color Film	si-silent sd-sound	Time in min.	GRADE LEVEL Prim.	Elem.	Jr. H. S.	Sr. H. S.	College	Adult	I-Instructional GI-General Int.	Unit Value	Description Page Number
Film Communique—12	sd	20				x	x	x	GI	3	**
War In Europe	sd	10			x	x	x	x	GI	1	117
World at War	sd	45		x	x	x	x	x	GI	3	123
940.531 World War, 1939-1945—Peace											
Freedom and Famine	sd	11		x	x	x	x	x	GI	1	62
Price of Victory	sd	13			x	x	x	x	GI	2	94
Suffer Little Children	sd	11		x	x	x	x	x	GI	1	108
In the Wake of the Armies	sd	14			x	x	x	x	GI	2	70
940.532 World War, 1939-1945—Diplomatic History											
Peace Builders	sd	10			x	x	x	x	GI	3	88
940.534 World War, 1939-1945—Individual Countries											
Dover	sd	10				x	x	x	GI	1	53
Fighting French Navy	sd	9			x	x	x	x	GI	1	58
Report from the Beachhead	sd	10			x	x	x	x	GI	1	97
940.535 World War, 1939-1945—Asia											
My Japan	sd	20			x	x	x	x	GI	2	81
Report on China	sd	33				x	x	x	GI	3	97
Stilwell Road	sd	50			x	x	x	x	GI	4	106
940.536 World War, 1939-1945—Africa											
Desert Victory	sd	60		x	x	x	x	x	GI	3	51
940.537 World War, 1939-1945—Americas											
All Out for Victory	sd	22			x	x	x	x	GI	2	32
Battle is in Our Hands	sd	30				x	x	x	GI	3	36
Conquer by the Clock	sd	11			x	x	x	x	GI	1	47
Gracias Amigos	sd	20		x	x	x	x	x	GI	2	64
It Can't Last	sd	20			x	x	x	x	GI	2	71
It's Your America	sd	35		x	x	x	x	x	GI	3	71
Peace Comes to America	sd	10		x	x	x	x	x	GI	1	88
Pincers on Japan	sd	20						x	GI	2	90
The Thousand Days	sd	21				x	x	x	GI	2	111
Tools of War	sd	20				x	x	x	GI	3	113
Three Cities	sd	10		x	x	x	x	x	GI	1	112
Troop Train	sd	11			x	x	x	x	GI	1	114
940.539 World War, 1939-1945 Far East. Pacific Ocean											
Action at Anguar	sd	24			x	x	x	x	GI	3	31
Letter From Bataan	sd	14			x	x	x	x	GI	2	74
Objective Security	sd	18		x	x	x	x	x	GI	2	84
940.542 World War, 1939-1945—Battles											
Battle for France	sd	10			x	x	x	x	GI	3	36
Corsica	sd	11		x	x	x	x	x	GI	1	49
Fury in the Pacific	sd	18			x	x	x	x	GI	2	64
Japs Bomb U. S. A.	sd	10			x	x	x	x	GI	3	71
Normandy Invasion	sd	19			x	x	x	x	GI	2	83
Sicily—Key to Victory	sd	18				x	x	x	GI	2	102
940.544 World War, 1939-1945—Aerial Operations											
Army Air Forces—Pacific	sd	18		x	x	x	x	x	GI	2	34
Army Air Forces Report	sd	24			x	x	x	x	GI	2	35
Case of the Tremendous Trifle	sd	20			x	x	x	x	GI	2	43
China Crisis	sd	45			x	x	x	x	GI	3	45

**See Addenda

FILM CLASSIFICATION * Indicates Color Film	si-silent sd-sound	Time in min.	GRADE LEVEL Prim.	Elem.	Jr. H. S.	Sr. H. S.	College	Adult	I-Instructional GI-General Int.	Unit Value	Description Page Number
D-Day Minus one	sd	18				x	x	x	GI	2	50
Fight for the Sky	sd	20			x	x	x	x	GI	2	58
Mission Accomplished	sd	10				x	x	x	GI	1	79
R. A. F. and 8th Air Forces Report	sd	8				x	x	x	GI	1	96
Reconnaissance Pilot	sd	29			x	x	x	x	GI	3	96
Target for Today	sd	93				x	x	x	GI	4	109
Target for Tonight	sd	48				x	x	x	GI	3	110
Warning, The	sd	30				x	x	x	GI	4	118
940.545 World War, 1939-1945—Naval Operations											
Atlantic Patrol	sd	10			x	x	x	x	GI	2	35
Conquest of the Night	sd	10			x	x	x	x	GI	1	47
Fleet That Came to Stay	sd	22		x	x	x	x	x	GI	2	60
Heroes of the Atlantic	sd	15				x	x	x	GI	2	67
957th Day	sd	9			x	x	x	x	GI	1	111
We Said We'd Come Back	sd	20			x	x	x	x	GI	2	120
940.547 World War, 1939-1945—Hospitals, Internment and Prison Camps											
Calls that Cure	sd	12			x	x	x	x	GI	1	42
Japanese Relocation	sd	9			x	x	x	x	GI	1	71
Lifeline	sd	20					x	x	GI	1	74
Perishable—Rush	sd	18			x	x	x	x	GI	2	89
*Remember These Faces	sd	18				x	x	x	GI	2	97
940.548 World War, 1939-1945—Propaganda											
Divide and Conquer	sd	14			x	x	x	x	GI	2	53
951 China											
Western Front	sd	22			x	x	x	x	GI	2	120
970.1 Indians of America											
Navajo Children	sd	11	x	x	x				I	3	82
Navajo Indians	sd	10			x	x			I	3	82
Pueblo Dwellers	si	15		x	x	x			I	1	95
Wee Anne Visits the Indians	si	15	x	x	x				I	1	120
971 Canada											
Guards of the North	sd	11				x	x	x	GI	1	66
973 United States—History											
Territorial Expansion of the United States	sd	22		x	x	x	x		I	6	110
Territorial Possessions of the United States	sd	22		x	x	x	x		I	6	111
Westward Movement	sd	11		x	x	x			I	3	120
973.1 Discovery Period											
Discovery and Exploration	sd	10			x	x			I	3	52
973.2 Colonial Period											
Colonial Children	sd	11		x	x				I	3	47
Colonial Expansion	sd	11		x	x	x		x	I	3	47
Early Settlers of New England	sd	11			x	x		x	I	3	54
973.9 United States—20th Century											
Visit of King George VI	sd	10			x	x	x	x	GI	3	117
975.5 Virginia				x							
Planter of Colonial Virginia	sd	11			x	x		x	I	3	91
976.3 Louisiana				x							
Life in Old Louisiana	sd	10			x	x			I	3	74

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976.9 Kentucky											
Kentucky Pioneers	sd	11		x	x	x		x	I	3	72
978 Western States											
Overland to California	si	15		x	x	x	x		I	1	86
Pioneers of the Plains	sd	10		x	x	x			I	3	91
F—FICTIONAL											
*Lost Chick	sd	10	x	x					GI	5	76
Tale of Two Cities	sd	40			x	x	x		GI	8	109
Treasure Island	sd	40			x	x			GI	8	114

Explanation of Catalog Notations

Academic=Academic Film Company, Inc.
AC=American Can Company
Am. Brass=American Brass Company
Am. F.=American Film Inc.
Am. Tanners=American Tanners Company
BFS=Bailey Film Service
BIS=British Information Service
Brandon=Brandon Films
C=Castle
CIN=Cinegraphic Films
Commonwealth=Commonwealth Picture Corporation
Coronet=Coronet Productions
Cunard=Cunard Films
Eastman=Eastman Company (Encyclopedia Britannica Film Inc.)
EBF=Encyclopedia Britannica Film Inc.
EFLA=Educational Film Library Association
Filmedia=Filmedia Corporation
Firestone=Firestone Tire & Rubber Company
Ford=Ford Company
Goodyear=Goodyear Company
Gutlohn=Walter O. Gutlohn
Hartley=Hartley Productions
Int. Education. F.=International Education Film
IFF=International Film Foundation, Inc.
Int. Geog.=International Geography
J H=Jam Handy Picture Service
K B=Knowledge Builders
Nat. S. S. I.=National School Service Institute
NFIP=National Foundation for Infantile Paralysis
OIAA=Office of Inter-American Affairs
OWI=Office of War Information
Paul Holfler=Paul Holfler Productions
Pa. S. C.=Pennsylvania State College
Potash Inst.=Potash Institute
PRD=Park Service
P&S=Photo and Sound Incorporation
Soil Con. and Dev.=Soil Conservation and Development
So. Pro.=Southern Productions
TAD=Training Aids Division
TB=N. C. T. B. Association
TF=Transfilm
TFC=Teaching Film Custodian
U F=United Fruit Company
USDA=United States Department of Agriculture
Veneer=Veneer Association

Alphabetic List of 16mm Sound and Silent Educational Films with Description and Unit Value of Each Film

Unit Value

ABOUT BANANAS (UF)
634.7 15 minutes—silent 1
Complete presentation of the banana industry from the clearing of the jungle and the planting to the shipment of the fruit to the American markets.

ACCENT ON USE (NFIP)
616.9 20 minutes—sound 2
This picture makes clear the part played by Physical Therapy in restoring patients to health. The subject is introduced with a display of the forces of nature . . . heat, cold, light, water, and electricity. As the story unfolds we see how these forces have been utilized as one of the great adjuncts in the art of healing. Stress is laid on the treatment of infantile paralysis, but the value of this therapy is shown through the application of the techniques to arthritis, cerebral palsy, and industrial accidents.

ACTION AT ANGUAR (OWI)
940.539 24 minutes—sound 3
Anguar, one of the most strategic islands in the Pacific, was garrissoned by fanatical Japanese troops and converted into an interlocking maze of pill boxes and strongpoints. This is the story of the untried 81st Infantry "Wildcat" Division which after a month's furious fighting, crushed veteran Jap troops and relieved the threat to the American Army's return to the Philippines.

ADVENTURES OF BUNNY RABBIT (EBF)
591.5 10 minutes—sound 3
Dramatizes for primary children the adventures of a mother rabbit and her family in their natural environment, explaining the rabbit's habits and characteristics.

ADVENTURES OF PETER (EASTMAN)
591.5 10 minutes—silent 1
Peter, a fox terrer, goes on a camping trip with his master. They find a baby wildcat, common mole, ground squirrel, armadillo, porcupine, hornet's nest, skunk kittens, owls and black bears.

AFRICAN FAUNA (PAUL HOEFLER)
591.5 10 minutes—sound—color 4
This beautiful, interesting, and instructive film was photographed just before the war by this internationally recognized African authority. It shows the animals: Waterbuck, Impalla, Cheetah, Crocodile, Elephant, Zebra, Lion, Giraffe, all in their natural habitat. A wonderful film.

AIRPLANE CHANGES OUR WORLD MAP (EBF)
912 11 minutes—sound 3
Describes the evolution of world map concepts and how the airplane has drastically reduced travel distances. Sequences include the problem of projection distortion; early maps and globes; latitude and longitude; Mercator's, Mollweide's, and Goode's projections; and distance contrasts between points on the globe by land, water, and air travel routes. The Great Circle route is traced on Mercator's projection, and airplane and steamship travel distances are compared.

Unit Value

ALASKA (EBF)

917.98 10 minutes—sound 3

Developed to show the relationship of people living in Alaska to their environment and the tremendous reservoir of resources which Alaska comprises. Fishing, lumbering, mining, fur trapping, and agriculture.

ALASKA (EASTMAN)

917.98 10 minutes—silent 1

Columbia; hydraulic mining, dredging for ore, stamp-mill Salmon traps, drying fish, Eskimo families, Eskimo dancer, herds of reindeers, Eskimo children at school. Juneau; the wheat ranch, cattle grazing, potato field, cabbage field, wheat harvesting, logging, view of White Pass, Yukon route, sunset on Inland Passage.

ALASKA'S SILVER MILLIONS (AC)

639 34 minutes—sound 3

Fascinating story of salmon and the amazing land of Alaska. Shows the geographical setting and many scenic wonders.

ALIMENTARY TRACT (EBF)

612.3 10 minutes—sound 3

Supplement to "Digestion of Foods." Treats motility phenomena of gastro-intestinal tract. Hypermotility, inhibition, anti-peristalsis, hunger contractions and normal movements are illustrated.

ALL OUT FOR VICTORY (OWI)

940.537 20 minutes—sound 2

This film stresses the interdependence of the home front and the battle front. It shows in a pictorial report, the effort being put forth by the workers on the home front toward the winning of the war.

ALONG THE BLUE RIDGE PARKWAY (PRD)

917.56 10 minutes—sound—color 2

Beautiful and interesting scenes along the Parkway through Virginia and North Carolina. Many mountain scenes.

ALUMINUM (OWI)

669.7 9 minutes—sound 1

A story of the "fateful metal"; importation of bauzite; transmutation into alumina and then into aluminum.

ALUMINUM: FABRICATING PROCESS (USBM)

669.7 30 minutes—silent 1

Illustrates working and shaping of aluminum into various forms. Scenes in rolling and blooming mill. Making containers by hydraulic extrusion. Making castings. Tests conducted in research laboratory. Uses of some completed aluminum products.

AMAZON AWAKENS, THE (OIAA)

918.1 35 minutes—sound—color 4

Produced by Walt Disney, this film tells the fascinating story of the Amazon River Basin, its history, its industrial progress, its richness of natural resources, and the possibilities for its future. Many of the sequences are done in true Disney animated form. Highly educational as well as entertaining.

AMERICANS ALL (OIAA)

918 20 minutes—sound 2

A story of the life of the people in the twenty American republics

Unit Value

south of the Rio Grande. Emphasizes the need for good relations between the U. S. and Latin America.

AMERICA'S CALL TO ARMS (C)

355 10 minutes—sound 3

Technique of mechanized warfare; tanks, scout cars, anti-tank and anti-aircraft guns, air bombing, parachutists, and the new mosquito flotilla.

AMERICAN WAY (AM.F)

342.73 11 minutes—sound 3

History of the Constitution from its beginnings in 1787 down to the present day. It takes up the three branches of our government: the executive, legislative, and judicial, showing how the judicial acts as a check to balance the other two.

AN AIRPLANE TRIP (EBF)

629.13 11 minutes—sound 3

A mother and her young daughter journey to Salt Lake City from Los Angeles in an airplane. They see parts of the plane serviced; mail and passengers taken on; the safety belt adjusted, and the plane's instruments explained. They are served a meal, see the berths made up and hear a radio and telephone weather report.

ANIMAL LIFE (EBF)

590 10 minutes—sound 3

Types of animals including sponges, coelenterates, echinoderms, worms, molluscs, crustaceans, insects, and vertebrates. Illustrations of locomotion, food intake, digestion, and respiration.

ANIMALS IN MODERN LIFE (EBF)

636 10 minutes—sound 3

How animals are used in our modern civilization to furnish food, clothing, material, and power.

ANIMALS OF THE ZOO (EBF)

591.5 10 minutes—sound 3

Animals of the zoo and foods they eat. Includes lion, tiger, giraffe, bison, sea-lions, bears, hippopotamus, rhinoceros, elephant, monkeys, and bears.

ANNE LEARNS ABOUT CARGO BOATS (CIN)

387 10 minutes—silent 1

Anne rides a ferry boat in San Francisco Bay, sees the Golden Gate Bridge and the Bay Bridge; watches an Ocean Freighter being loaded; visits an Oil Tanker; learns about the operation of a Fire Boat and sees it in action.

ANNE VISITS FISH HARBOR (CIN)

639 5 minutes—silent 1

Anne and Bob watch Tuna Clippers come into the harbor. They meet an old sailor who shows them the boats and tells them how tuna fish are caught.

ANOTHER TO CONQUER (TB)

616.24 22 minutes—sound 3

Portrayal of a cross-section of Indian life. This film about the tragedy of T. B. in an Indian family makes one realize the sorrows that might be avoided if the disease were taken care of in time.

Unit Value

APHIDS (EBF)

595.7 11 minutes—sound 3

This film deals with a very interesting creature. It shows that most aphids have no father or even grandfather. Some are born alive, while others hatch from eggs; only a few have wings. Ants keep them as cows, while the aphid itself secures its food in an unusual way. Animated drawings of the aphid's life cycle. An excellent picture.

APTITUDES AND OCCUPATIONS (CORONET)

371.42 16 minutes—sound 5

Discusses six of the fundamental human abilities—mechanical, clerical, social, musical, artistic and scholastic and indicates how a student may, with the aid of school counselor, determine how much of each of these abilities he has. It also indicates broad fields in which certain combinations of abilities are required.

ARGENTINA (EBF)

918.2 11 minutes—sound 3

Buenos Aires, the commercial, financial, and industrial hub of predominantly agricultural Argentina. A grain broker and a packing plant employee, with the family of the latter, are introduced as representative city-dwellers. The vast pampas region, the source of Argentina's agricultural wealth; the dependence of the city on the rural hinterland. Spanish dialogue is periodically incorporated into the film story.

ARGENTINE PRIMER (OIAA)

918.2 23 minutes—sound 2

After brief expository material on the geography and history of the country, the film shows Argentina as it is today with scenes of people at work and play.

ARGENTINE REPUBLIC (EASTMAN)

918.2 15 minutes—silent 1

Republic is essentially agricultural and pastoral. Patagonia, region of sheep grazing; arid uplands, which produce heavy crops of sugar cane and grapes with aid of irrigation; pampas, flat expanse of loess combining natural grazing grounds in heart of Argentina with rich agricultural areas near seaboard.

ARID SOUTHWEST (EASTMAN)

917.91 15 minutes—silent 1

Pictures parts of Arizona, New Mexico, and southern Utah and covers desert plants and animals and the nomadic life of the Navajo Indians.

ARM BEHIND THE ARMY (OWI)

330.973 10 minutes—sound 1

"The success of the Army on the firing line depends upon the success of labor and industry on the production line. And the security of American industry and labor depends upon the success of the American Army. An Axis victory means the enslavement of both labor and industry." A positive appeal for unity.

ARMY AIR FORCES—PACIFIC (OWI)

940.544 18 minutes—sound 2

Shows the part played by American aircraft in retaking Wake and the Philippines, in the Burma Campaign, in the Saipan and Okinawa invasions, and finally over Japan itself. There are scenes of

Unit Value

Ernie Pyle's burial place, and the dropping of the first atomic bomb over enemy territory.

ARMY AIR FORCES REPORT (OWI)

940.544 40 minutes—sound 3

Shows how our Air Forces were organized and expanded, including the Fighter and Bomber Commands, the Air Transport Command, the Air Service Command, Nazi warning systems, anti-aircraft batteries; and fighter-plane operations are shown from the beginning of an Allied attack up to and including the actual sky combat between our own and enemy planes.

ARMY NURSE (OWI)

610.7 18 minutes—sound 2

Here is an explanation of why the woman nurse in World War II is first a nurse, then a woman, and third, an officer. The nurse's basic training is pictured briefly, while her work in the field and evacuation hospitals and aboard hospital planes, trains, and ships is given in more detail. The film also pays tribute to those nurses who remained in this country to contribute to the recovery of the many soldiers still to be found in our general hospitals.

ARTS AND CRAFTS OF MEXICO (EBF)

917.2 10 minutes—sound 3

In the fascinating background of Old Mexico, native craftsmen are shown in their home workshops. Spinning sheep's wool, the weaving of serapes (sleeveless coat-like blankets) basket-making, glass blowing, and pottery-making, each are treated in detail.

ATACAMA DESERT (OIAA)

661.6 20 minutes—sound 2

Life and industry in the hot, dry Atacama Desert of northern Chile. Here are found the rich nitrate deposits for which Chile is famous. Modern mining methods are shown, and there is also an interesting study of the life lived by the people of this region.

ATLANTIC PATROL (NFB)

940.545 10 minutes—sound 2

Impressive film showing how Canada patrols the Atlantic to give convoy protection to the Allies.

ATMOSPHERE AND ITS CIRCULATION (EBF)

533 11 minutes—sound 3

The first part of the film gives a detailed presentation of the structure; the chemical composition; the gaseous nature; the distribution of air, the weight of air, altitude and pressure and temperature. The second sequence shows the circulation of the atmosphere as it would appear on an idealized globe without mountains or oceans. The circulation is explained in terms of the pressure bands surrounding the earth. The actual circulation or wind movements as affected by the earth's rotation is described in detail for winds near the surface and for winds aloft.

ATMOSPHERIC PRESSURE (EASTMAN)

533 10 minutes—silent 1

Illustrates unbalanced air pressure, including the Magdeburg Hemisphere demonstration; and atmospheric variations in pressure between valley and hilltop and between land and water.

Unit Value

BACKWARD CIVILIZATION (EBF)

916.1 21 minutes—sound 5

A survey of life among the Berber tribe in Northern Africa, an excellent example of the stagnation which accompanies isolation of peoples. Every significant aspect of the daily life of these peoples is shown, drawing effective contrast between the phenomena of an environment of scarcity through isolation and our modern environment of plenty through communication and interdependence.

BACTERIA (EASTMAN)

589.95 12 minutes—silent 1

A culture medium is made, and bacteria from vinegar, water, rich earth, and dust are carefully grown, and subsequently stained and examined.

BATTLE FOR FRANCE (C)

940.542 10 minutes—sound 3

A stirring picturization of the fall of France. Dramatic evacuation of burning Dunkerque. French defend the rear as the main armies retreat. Paris bombed before surrender. Maginot Line abandoned. Petain made premier. Paris occupied.

BATTLE OF BRAINS (NFB)

355 13 minutes—sound 2

Illustrates the difference between this war and that of 1914, emphasizing the importance of mechanization, and contrasting the mobile tactics of this war with the immobility of trench warfare.

BATTLE IS IN OUR HANDS (USDA)

940.537 30 minutes—sound 2

Scenes of battle are shown. The commentator points out that the present battle for democracy's existence in the world is in the hands of Americans and their Allies.

BEACH AND SEA ANIMALS (EBF)

591.92 10 minutes—sound 3

A survey of typical beach and sea animals, their habitats and activities, shown in their respective environments by underwater closeups. Special consideration is given to their methods of self-protection and inter-relationships.

BEAR AND ITS RELATIVES (CORONET)

591.5 16 minutes—sound 5

Clear and interesting shots of the raccoon, the panda, kodiak bear, polar bear, the grizzly and the American black bear. Close-ups are given of teeth, hoofs, and ways of eating.

BEET AND CANE SUGAR (EASTMAN)

664.1 15 minutes—silent 1

Locates the various world regions in which the plants are found —shows the way juice is obtained and refined—and how the suger is dried and molded into cubes by automatic machines.

BEHIND THE SHADOWS (TB)

616.24 10 minutes—sound 3

A doctor explains to a group of high school boys and girls what tuberculosis is. X-rays and animated diagrams illustrate his story.

Unit Value

BELO HORIZONTE (OIAA)

918.1 18 minutes—sound 2

The story of Brazil's "planned city with a plan." Belo Horizonte, a city of over 200,000 inhabitants, is unique in that less than 50 years ago, before a single house or street was built, complete plans for its building were drawn up. Now it is one of the most progressive and modern cities in the world and is located in a section rich in mineral resources.

BENEATH OUR FEET (TFC)

595.7 9 minutes—sound 3

Glimpses of the insect world which exists in the grass show an ant drinking a dew drop, rival male crickets fighting, a cricket singing by moving its legs, a sand cricket struggling with a trapdoor spider, and aphids being eaten by ladybird larvae.

BERLIN (EASTMAN)

914.3 15 minutes—silent 1

Shows modes of transportation, street scenes, public museums, zoological gardens and parks, universities and schools; modern housing, Berlin airport, school management, etc.

BID IT UP, SUCKER (OWI)

339.4 2 minutes—sound 1

Through animation this short film bulletin shows how inflation may be caused by disregard for the worth of the merchandise and consumers willingness to pay exhorbitant prices.

BIP GOES TO TOWN (USDA)

637 9 minutes—silent or sound 1

Bip, a small farm boy, finds that his chores are never ended. He visits a modern electrified farm and sees how electricity is used to make farm tasks easier. Designed to build appreciation of the possibilities in using electric power on the farm.

BIRDS OF PREY (EBF)

598.2 11 minutes—sound 3

Several common species belonging to the group of birds of prey are presented in this film. Among them are the turkey vulture, black vulture, marsh hawk, red-tailed hawk, rough-legged hawk, bald eagle, sparrow hawk, and the owl family. These birds are shown in their natural habitats, and pursuing their characteristic activities. Typical calls and sounds are presented as the occasion demands.

BIRDS OF THE DOORYARD (CORONET)

598.2 10 minutes—sound—color 5

This film gives us revealing glimpses of six birds frequently seen, but seldom portrayed. It begins with the Robin, and then shows the White-throated Sparrow, the brilliant Bronzed Grackle, the House Wren, the Yellow Warbler, and the Purple Martin.

BITUMINOUS COAL (EASTMAN)

622.33 15 minutes—silent 1

Shows mining of soft coal—testing for gas, blasting, purifying air, slate picking, sorting. Also manufacture of coke—crushing, floating off slate, bee-hive and retort ovens, quenching and loading.

Unit Value

BLACK BEAR TWINS (EBF)

591.5 11 minutes—sound 3

This film portrays the experiences of a family of campers in observing a pair of small, hungry, and mischievous twin bears. The bears play with a blanket and ball; raid a wild-bee hive; nurse their stings in a mud puddle; then go for a swim in an adjoining lake.

BLACK MARKETING (OWI)

641 11 minutes—sound 1

Dramatizes an object lesson which pleads for public cooperation with the OPA and local law-enforcement officials to prevent violation of ceiling prices and rationing laws in black marketing.

BLESSINGS OF GRASS (USDA)

631.4 21 minutes—sound 2

The story of cattle grazing in the National Forests and on the ranches of the West. Shows ill effects of overgrazing, how government rangers and stockmen can cooperate, and proper grazing methods.

BLOCK THAT TERMITE (USDA)

595.73 20 minutes—sound 2

This film gives the complete story of the termite, showing how it plays havoc with buildings and methods of prevention.

BLOOD (EASTMAN)

612.1 12 minutes—silent 1

Illustrates the separation of plasma from blood cells, protein and salts from plasma—staining cells—counting red blood corpuscles —how white blood cells reach the body tissue—clotting of blood.

BOATS (EBF)

386 11 minutes—sound 3

On taking a boat trip from Albany, down the Hudson River to New York, Nancy and Roger have many exciting adventures. Between seeing the sights along the shore, inspecting the different parts of their boat, and observing the different types of boats which ply the river, their time is fully occupied. A landing at a river town, the approach to New York City and the many wonders of its harbor are climaxed by seeing a great ocean liner, assisted from its dock by tugboats to begin its journey across the Atlantic.

BOB MARSHALL COMES HOME (USDA)

355.11 17 minutes—sound 2

Through the story of a returning veteran who wants to expand his farming production through modern methods, the story of the development and growth of REA cooperatives is told.

BODY DEFENSE AGAINST DISEASE (EBF)

613 10 minutes—sound 3

Provides an exposition of the three lines of defense against disease: the skin, phagocyte cells and lymphatics, and the circulatory system, including the liver and the spleen. Closeups reveal the ciliary action of the mucous membrane. Normal, infected, and ruptured appendices are depicted. Magnified views show the reaction of serums containing antibodies to typhoid and cholera bacteria.

Unit Value

BODY FRAMEWORK (EASTMAN)

611 15 minutes—silent 1

Shows how the skeleton determines shape and size of the body, and how it protects the vital organs. Demonstrates details of bone structure and composition, changes during growth, mending of a fractured bone, relation of sunlight and cod liver oil to bone development and joint action.

BOLIVIA (OIAA)

918.4 20 minutes—sound 2

An overall study of one of Latin America's most interesting countries. Marked variety of geographic, climatic, and productive conditions are shown. Emphasis is laid on tin which provides almost all of Bolivia's exchangeable wealth. Rubber, quinine, and the coca leaf are also mentioned as are the lives of the people concerned with these products.

BOMBER (OWI)

629.13 10 minutes—sound 1

Shows the manufacture of the Martin B-26 medium bomber and suggests its speed and power as a combat plane.

BOMBS OVER EUROPE (C)

940.53 11 minutes—sound 3

Action pictures of the war in Europe. German's march into Norway. French tanks move to the front for action. General Weygand makes plans for future attacks. British "Torries" file forward as civilians file to the rear seeking safety.

BOONE TRAIL (EASTMAN)

917.5 16 minutes—silent 1

Visualizes, with maps and photography, the Appalachian Valley: prosperous farm lands and minerals, forests, and primitive life at a mountaineer's cabin; the Blue Grass region of Kentucky—tobacco and hemp crops, dairy cattle, champion horses.

BOUNTEOUS EARTH (OIAA)

394 9 minutes—sound 1

Deals with agricultural celebrations in Mexico. Farmers bring their animals to Church to be blessed; the spring fertility rites at Tlacotalpan; the harvest festival at Tehuantepec. A thankful people show their gratitude for a bountiful harvest.

BRASS CHOIR (EBF)

788 10 minutes—sound 3

The timbres of various brass instruments are demonstrated—the brilliance of the trumpets, the mellow romantic quality of the horns, the rich power of the trombones and the massive depths of the tuba. Unique camera angles show intimate details of playing techniques. Opens with a portion of Beethoven's "Fifth Symphony" and closes with the finale from Wagner's "Tannhauser" Overture.

BRAZIL, PART I (EASTMAN)

918.1 13 minutes—silent 1

AMAZONIAN LOWLANDS—Located in the immense drainage basin of the Amazon River. Shows the wild life, native Indians, jungle products—Brazil nuts and wild rubber—and the cities of Manaos, Santarem, Belem.

Unit Value

BRAZIL, PART II (EASTMAN)

918.1 13 minutes—silent 1

EASTERN HIGHLANDS—Outlines the principal agricultural and industrial products of Eastern Brazil—coffee, cacao, cassava (manioc), sugar, tobacco, pineapples, silk, and shoes. Sao Paulo, Santos, and Rio de Janeiro.

BRAZIL (OIAA)

918.1 11 minutes—sound 1

A tour of beautiful Rio de Janeiro and of various towns on the shores of the Amazon. Santos, Brazil's coffee center, is also visited, and the vastness of Brazil's resources is stressed.

BRAZIL (EBF)

918.1 11 minutes—sound 3

Provides a geographical orientation to Brazil's vast extent, its regional contrasts, and its coast cities, before concentrating on the coffee-growing area. A land owner, an agent, and a family of pickers are seen in their relationships to a large coffee plantation, with its varied crops, its mixture of immigrant peoples, its educational and religious activities. Brazil is revealed as a predominantly Portuguese country.

BRAZIL'S FISHING SCHOOL (OIAA)

799.1 18 minutes—sound 2

The story of the favorite project of President Vargas, the Marambaia Fishing School, located fifty miles south of Rio de Janeiro and facing on the Bay of Ilha Grande. This unique project trains Brazilian boys in all the arts of fishing: handling and building small boats, making and repairing nets, and catching all sorts of fish from sardines to sharks.

BRAZIL GETS THE NEWS (OIAA)

070 10 minutes—sound 1

Living proof that South America is modern and enterprising. Taken in a Sao Paulo newspaper plant, the film describes the complete publication of a newspaper from the original dispatch to the time when the paper is on the streets.

BRAZILIAN QUARTZ (OIAA)

549 10 minutes—sound 1

An interesting pictorial report of the mining of quartz in Brazil and the part that this great Brazilian resource is playing in winning the war.

BREATHING (EASTMAN)

612.2 12 minutes—silent 1

Excellent scenes and animations stress the importance of good lungs, and explain the action of the diaphragm, breathing, lung structure and function.

BRIDGE, THE (OIAA)

918 32 minutes—sound 3

The emphasis of this documentary film is on the transportation problem in South America. Shows how air travel will probably play a bigger part than anything else in modernizing the remote, inaccessible regions of Latin America.

BRYCE NATIONAL PARK (FORD)

917.92 10 minutes—sound 1

This picture shows the beauties of one of the most scenic spots

Unit Value

in picturesque Utah. Many beautiful scenes are shown to advantage, and the very unusual photography assures a picture of lasting interest.

BUILDERS, THE (EBF)

690 20 minutes—sound 3

The construction of a skyscraper, showing the work of draftsmen, wreckers, excavators, steel workers, and the laying of concrete floors, bricklaying and marble work. Plumbers at their job, terra cotta and tile setters, plasterers, roofers, painters and the men who install elevators are also shown.

BUILDING A BOMBER (OWI)

629.13 20 minutes—sound 2

An educational exposition on the building of the B-26 Army bomber. Is of considerable interest to engineering schools, vocational groups, and educational organization.

BUILDING A TANK (OWI)

358 20 minutes—sound 2

The speed-up of the tank production program, including technical details regarding construction and processes involved in the manufacture of the M-3 medium tank.

BUENOS AIRES AND MONTEVIDEO (OIAA)

918 10 minutes—sound 1

A study of Buenos Aires with its large buildings, its modern apartments, its department stores, and its modern way of life. From there the cameras move to Montevideo, the capital of Uruguay, with its beautiful homes and wide, white beaches.

BUS DRIVER, THE (EBF)

629.2 11 minutes—sound 3

A dramatized account of an eventful cross-country bus trip made by a small boy. Shows how a bus driver meets driving hazards, serves his passengers, and keeps his bus in operating condition. Principles of safe driving and aids to safety and efficiency provided by modern highway construction are stressed. Pictures the activities of a bus terminal and service garage, along with typical experiences of a four-hundred mile bus journey.

BUSINESS MACHINES (EASTMAN)

652 10 minutes—silent 1

Illustrates the various machines used in offices. This film is particularly valuable to commercial students in secondary schools who plan to do regular office work.

BUTTERFLIES (EBF)

595.78 10 minutes—sound 3

The complete life history of the cabbage butterfly and the swallowtail butterfly with their different characteristics and habits, including their role in nature, that of aiding in the cross-fertilization of flowers. Time-lapse photography is employed to show in a few seconds processes which require an hour or more. The destructiveness of the cabbage butterfly, as well as its unusual control by a natural enemy, is dramatically depicted.

CADET CLASSIFICATION (AAF)

629.13 20 minutes—sound 2

Points out the basic principles inherent in classification procedure

Unit Value

for selection of cadets to be trained as pilots, navigators, and bombardiers. The conclusion of the film shows how a cadet who isn't satisfied with his classification can take his case to the Appeal Board.

CALLS THAT CURE (OWI)

940.547 10 minutes—sound 1

This film shows how every provision has been made to make the telephone within the reach of all at Halloran Army Hospital. Especially stressed is the tremendous curative power that results when the wounded and sick are able to get in touch with their families.

CAMPUS ON THE MARCH (OWI)

378 20 minutes—sound 2

Today there are over 1,500 colleges and universities in the U. S. devoting their resources and facilities to the war effort. Some of their wartime activities—courses in engineering and in medicine, R.O.T.C. training, Army and Navy units, laboratory experimentation, classes in languages, nutrition, aeronautics, military law, and radio.

CAN YOU READ GREGG (EASTMAN)

653 10 minutes—silent 1

Principles of the Gregg shorthand method.

CANALS OF ENGLAND (EBF)

386 20 minutes—sound 5

Origin, development, and present status of canal boat traffic in England. A voyage on one of the boats through Grand Union Canal.

CANNING THE VICTORY CROP (USDA)

641.4 20 minutes—sound—color 2

A striking movie in technicolor with excellent instruction on the methods and procedures for canning.

CARE OF PETS (EBF)

636 11 minutes—sound 3

Natural scenes of pets and instruction on how children can take care of them.

CARE OF THE FEET (EBF)

616.7 10 minutes—sound 3

Explains clearly the functions of the feet and the distribution of the weight of the body with the relation of this weight to the force of gravity affecting the feet while the body is standing at rest or in motion. With the aid of diagrams and x-ray it shows vividly the results of foot abuse, gives remedies for correcting foot ailments, and explains the proper care of the feet.

CARE OF THE TEETH (EASTMAN)

617.6 10 minutes—silent 1

Points out the importance of proper diet; demonstrates ways in which the teeth can be beautified and preserved with dental care; shows methods of daily care at home.

CARVER, GEORGE WASHINGTON (TFC) (See regulations—last page)

921 10 minutes—sound 3

How a Negro slave boy received an education, became a scientist, and worked to the benefit of the Southern farmer.

Unit Value

CASE OF THE TREMENDOUS TRIFLE (OWI)

940.544 20 minutes—sound 2

Dramatizes the important war role of small parts, and the workers who make them. The Schweinfurt raid, the story behind the raid, and the significance of this operation are all pictured.

CATALYSIS (EBF)

541.3 10 minutes—sound 3

Explains concentration by absorption, activation by absorption, intermediate compounds in a homogenous mixture, chain reactions, breaking of reaction chains, poisoning of catalysts, and negative catalysts or inhibitors.

CATTLEMEN, THE (EBF)

636.2 10 minutes—sound 3

Depicts in full detail life on a cattle ranch and the activities of the family and its hired help.

CEILING ON YOUR HOME (OPA)

332.4 10 minutes—sound 1

Shows why rents on dwellings threatened to go sharply up during World War II and afterward, and how an inflation in rents would affect our general welfare.

CENTRAL AMERICA (EASTMAN)

917.28 10 minutes—silent 1

Guatemala City and the surrounding country; methods of logging mahogany; growing and harvesting bananas; and the production of cacao and coffee.

CENTRAL AMERICA (EBF)

917.28 10 minutes—sound 3

Presents authentic documentary material concerning the geography and climate of Central America and the story of its peoples and their present-day activities. Photographic sequences depict the types of people and economic activities of the region, including agriculture, manufacturing, commerce, and transportation. An important film for developing acquaintance with Latin America.

CHALLENGE TO DEMOCRACY (OWI)

325.73 17 minutes—sound 2

This film tells the story of 110,000 displaced people and how the U. S. Government is handling the problem. The subjects are people of Japanese descent who were evacuated from the Pacific coast by the Army in 1942 and subsequently transferred to barrack cities.

CHAMPIONSHIP TYPING (EASTMAN)

652 10 minutes—silent 1

This film shows techniques used by a champion typist.

CHEMICAL EFFECTS OF ELECTRICITY (EASTMAN)

621.35 10 minutes—silent 1

Action of two electrodes in electrolyte is traced from crude beginnings by Volta, through modern battery manufacture and use, electrolysis, electroplating and electrotyping, to the metallurgy of copper and aluminum.

CHEMISTRY AND A CHANGING WORLD (EBF)

660 10 minutes—sound 3

Directs attention to the significant role which chemistry plays in

Unit Value

our modern world. Traces the steps leading up to the production of electric furnace phosphorus. Portrayals of the work of research chemists and chemical engineers from the inception of the idea to the multiple uses of the completed product provide vocational information.

CHILD CARE—BATHING (EASTMAN)

649 10 minutes—silent 1

Shows various types of equipment which may be used in bathing. the baby as well as the correct methods of handling.

CHILD CARE—FEEDING (EASTMAN)

649 10 minutes—silent 1

A detailed account of the routine of feeding the breast-fed and bottle-fed infant. Preparation of utensils, making up the formula. Addition of other foods to the diet is illustrated.

CHILD IN TRAFFIC (EASTMAN)

629.213 10 minutes—silent 1

Illustrates how motorist and pedestrians, especially children can get excited and cause accidents that might otherwise be avoided.

CHILDREN OF CHINA (EBF)

915.1 11 minutes—sound 3

Reproduces episodes from the home, school and play life of children in a representative village deep in the interior of China. Different types of family relationships are observed. School training in loyalty to parents, together with home and community customs, reflect the influence of Chinese tradition on contemporary life. Recreational activities are shown, and Chinese dialog is reproduced and interpreted in several sequences.

CHILDREN OF HOLLAND (EBF)

914.92 11 minutes—sound 3

Study of the home life, environment and activities of a country boy and girl in picturesque Holland. Their school activities, sports and games, and a horse and cart trip with their parents to a typical Dutch town provide glimpses of rural and urban life. Handicraft, hobby and recreational activities, are shown.

CHILDREN OF JAPAN (EBF)

915.2 11 minutes—sound 3

In an environment obviously influenced by Western technology, the film presents events in the daily life of a middle-class Japanese family. Their home surroundings, living and sleeping quarters, furnishings, dress, customs, and manners are depicted, along with school and play experiences of the children and routine tasks of the parents.

CHILDREN OF RUSSIA (IFF)

914.38 13 minutes—sound 3

You wouldn't expect to see a dramatization of our American Huck Finn in this film but it's there because it is included in the Russian school curriculum. In this film we see how the Russian children go to school—garden—play—parade—visit museums and the art galleries—and live in the summer Pioneer camps, comparable to our youth camping programs.

CHILDREN OF SWITZERLAND (EBF)

914.94 10 minutes—sound 3

A railway train makes a long steep climb to a village in the

Unit Value

Swiss Alps. On the village street we find Trudi Naegeli and her brother Hans, who often linger in the village to see tourists arrive. On their way home they stop at the shop of a woodcarver. Here we see figures of William Tell and many many carvings of cattle and clocks of every size. Father Naegeli makes his own cheese, and harvests his own crops.

CHILE (EASTMAN)

918.3 10 minutes—silent 1

Shows life, environment, and occupations of the people living in the northern, southern, and central parts of this South American country.

CHILE (EBF)

918.3 11 minutes—sound 3

Calls attention to varied aspects of the Chilean scene—mountains, deserts, glaciers, mines, ports, and pastoral areas—before proceeding to an estate in the agricultural Central Valley. Here the role of the estate is seen in relation to the visiting owner and his family, the farming population, and Chilean agriculture generally. On the family's return to Santiago, varied aspects of Chile's capital city are featured—especially its role as an educational center. Spanish dialogue is extensively used throughout.

CHINA CRISIS (OWI)

940.544 45 minutes—sound 3

This is the story of the Fourteenth Air Force, originally the Flying Tigers. Opening with background scenes of unchanging China, the film pictures the difficulties of transporting men and materials into China from India—over 700 miles of varied-gauge railways and over 500 miles of Hump flight. After making the Hump secure, airfields were built by Chinese hand-labor. The film closes with pictorial statistics on the accomplishments of the Flying Tigers.

CHOOSE TO LIVE (USDA)

616.9 20 minutes—sound 2

The fight of the United States Public Health Service against cancer. The causes of cancer, preventive measures, methods of treatment, and curing are clearly outlined.

CHOOSING YOUR VOCATION (EBF)

371.42 10 minutes—sound 3

Dr. Kitson enacts the role of a psychoanalyst as he interprets the vocational problems of a high school boy who is making an effort to adjust himself. The boy faces his first problem when he desires money to purchase a camera. His first attempt at a job is unsuccessful. Further research and reading convince the boy that he must enter a vocation which will permit him to utilize his special talents and interests.

CHUCK TAYLOR'S FUNDAMENTALS OF BASKETBALL (BAILEY)

796.32 11 minutes—sound 3

In this fine film we learn something of team strategy while the technique of shooting, passing, dribbling, defensive and offensive ball handling is demonstrated. We also see that proper footwork is very important in basketball.

CIRCULATION (EASTMAN)

612.1 10 minutes—silent 1

Animations and photography trace the human circulatory system.

Unit Value

Comparison of human heart with that of a frog. Cycle of pulmonary circulation.

CIRCULATORY CONTROL (EASTMAN)

612.1 10 minutes—silent 1

Pressure of blood in arteries. Methods of measuring blood pressure. Structure and work of veins. Nature's method of vasomotor control.

CITY WATER SUPPLY (EBF)

628.1 10 minutes—sound 3

Animated drawings describe the relation between rainfall and life; the sources of city water supply—wells, rivers, lakes, and water-shed; water-borne diseases; and methods of water distribution.

CLOTHING (EBF)

646 10 minutes—sound 3

Traces the development of textile arts through the hand processes of various nationalities up to the modern mass production of the machine age. Describes the typical ways in which backward people use the materials in their immediate environment for clothing. Illustrations of the effect of climate and environment on the materials and modes of dress.

CLOUD IN THE SKY (TB)

616.24 10 minutes—sound 3

Opening with scenes of a lively fiesta, the tempo of this film quickly changes to one of sadness; death has come to the mother of a family. Through an absorbing story, the modern ways of thwarting tuberculosis are shown, and a theme that might easily have ended with tragedy culminates in a scene of gaiety.

CLOUDS (USDA)

551.57 11 minutes—sound 1

Various types of clouds are shown, and the movement of high and low pressure areas across the country is described. Weather forecasting as the result of cloud study is discussed.

COAST GUARD SPARS (OWI)

614.8 6 minutes—sound 1

Shows the assignments which are given the SPARS. Emphasizes the fact that a SPAR releases a man for the sea. Shows the indoctrination period, the work, the rating, and the privileges of the SPARS.

COFFEE (EASTMAN)

663 15 minutes—silent 1

The story of coffee in South America, including views of Colombia. Treats coffee growing, hulling and cleaning, shipping coffee, and preparing for market.

COLOMBIA (OIAA)

918.6 10 minutes—sound 1

The old port of Barranquilla and the fine towns of Bogota and Cartagena, along with scenes of the countryside. Trends toward modern industrialization are noted.

COLOMBIA AND VENEZUELA (EBF)

918.6 11 minutes—sound 3

Describes the human and economic geography, topography and cli-

Unit Value

mate. Shows the several types of people that live here and their work—farming, mining, shipping, manufacturing. Animated map drawings show the extent of Colombia-Venezuela world trade in the import and export of products.

COLOMBIA, CROSSROADS OF THE AMERICAS (OIAA)

918.6 27 minutes—sound 2

An introduction to the life in Colombia from a geographic, social, and economic standpoint. Produced by Julien Bryan, the film depicts family life as well as Colombian industries dealing in oil, coffee, and minerals.

COLLOIDS (EBF)

541.34—10 minutes—sound 3

Illustrations of fog (liquid in gas), whipped cream (gas in liquid), clay and india ink (solid in liquid), smoke (solid in gas), and mayonnaise (liquid in liquid).

COLONIAL CHILDREN (EBF)

973.2 11 minutes—sound 3

This film is an authentic reproduction of a Colonial family's day from the morning chores and breakfast to the reading of the Scriptures in the evening. Gives detailed home furnishings, clothing, customs, and events with conversations by the cast.

COLONIAL EXPANSION (EBF)

973.2 11 minutes—sound 3

Colonial development in America from the point of view of the influence of each of the great powers, Spanish, French and English, tracing in detail the struggle for control which finally ended with the English being almost completely supreme.

COMBAT AMERICA (OWI)

629.13 63 minutes—sound—color 4

"Comat America" relates the most sustained, exciting, and deadly aerial battles to come from the cameras of the U. S. armed forces. Major Clark Gable gives a vivid story of the fighting and bomb bays of the B-17's on their early devastating raids over Germany and occupied France. This hour-long documentary film pulls no punches, showing American casualties as well as those of the Luftwaffe, then still in its full effectiveness. The film follows the Flying Fortress crews of the 351st Bombardment Group from the end of their training at a Colorado training field to actual combat over Germany. Gable also acts as narrator.

COMMON ANIMALS OF THE WOODS (EBF)

591.5 10 minutes—sound 3

Pictures the squirrel, rabbit, raccoon, porcupine, otter, mink, beaver, possum, skunk, and woodchuck. In each instance the distinguishing characteristics of the animal are shown, such as: the ability of the beaver to build a dam and the habit of the mother possum carrying her young.

CONQUER BY THE CLOCK (OWI)

940.537 10 minutes—sound 1

Drives home the fact that there is little difference between the patriotic but thoughtless American and the Axis saboteur. Shows how the negligence of a girl inspecting rifle cartridges and negligence of a businessman cost the lives of two of our soldiers.

CONQUEST OF THE NIGHT (USN)

940.545 10 minutes—sound 1

Shows in detail how three enemy ships first appear to the radar

Unit Value

operator on an American destroyer. The pulses of light on the radar-scope are analyzed by the control officer and both guns and torpedoes are directed accurately against the unseen target. The picture points out that superiority in this field of radar, required for continued national security, can be assured only through financial support of government efforts.

CONSERVATION OF NATURAL RESOURCES (EBF)

333 10 minutes—sound 3

Three natural resources hold the center of attention in this film: water power, forests, and farm lands. Early wastes in the lumbering industry and agriculture are delineated, and the appalling results of these are shown. This is followed by an explanation of steps which have been taken and are now being planned to conserve these resources. Effects of wind and water erosion and unwise farming scenes from the Dust Bowl, and local and federal efforts to check these abuses are shown.

CONSTRUCTION OF A LIGHT AIRPLANE (Pa.S.T.C.)

629.13 22 minutes—sound 2

Photographed at the Piper Aircraft Corporation in Lock Haven, Pa. This film is an educational treatment of the building of a light airplane. Covers completely the construction of four of the five major parts of the airplane—the fuselage, landing gear, tail surfaces, and the wing. Engines are not shown because they are bought by the factory completely assembled.

CONTINENT OF SOUTH AMERICA (EASTMAN)

918 12 minutes—silent 1

An animation emphasizes the triangular shape of all the continents, and locates South America on the globe. Following mountain scenes, the Andes are located on a map. The Pacific slope is shown to be steep, with short swift rivers. The Brazilian Highlands, La Plate Basin, The Guiana Highlands, Orinoco Basin and the Amazon Basin are all located and scenes from each are shown.

CONTROL OF BODY TEMPERATURE (EBF)

612 11 minutes—sound 3

By means of laboratory demonstrations, animated drawings, and special photography, phenomena associated with variations of body temperature in animals and man are shown. Foods are designated as the source of body heat, and the roles of nerves, glands and muscles in its control are portrayed. The blood stream is depicted as the distributor of heat, and the function of the hypothalamus is compared to that of a thermostat.

CONTROL OF WORMS IN HOGS (USDA)

632.7 28 minutes—silent 1

Methods of control of various injuries done by the many parasites which attack hogs.

CORN FARMER (EBF)

633.1 11 minutes—sound 3

This film gives a clean, concise picture of the problems and methods of the Iowa corn grower, using a typical corn belt family as its model. Depicted are the family's activities in planting, harvesting, and marketing . . . as well as incidental interests such as crop rotation, home canning, and politics. A wonderful teaching

Unit Value

film, suitable for geography classes from fifth grade up, and for economics, home economics, and social problems.

CORSICA (FRENCH)

940.542 10 minutes—sound 1

French and Allied landing in Corsica. General de Gaulle's visit to Corsica. Views of the country, customs, dances, and most important cities of Corsica.

COTTON AT WAR (OWI)

677.2 13 minutes—sound 1

Cotton at War leaves no doubt as to the vital importance this material plays in our efforts for victory. Combat and training scenes show vividly that virtually everything that shoots, flies, floats, rolls, or walks has cotton as an integral unit and would be useless without it.

CROPS FOR COMBAT (USDA)

655 10 minutes—sound 1

Shows how we are "growing" our own oil. Flax, cotton, peanuts, and soybeans all yield oil for use in factories, for use by machines in our armed forces, for use in painting our ships, and for fuel for our ships. The extraction of oil from soybeans is shown and some of the uses of soybean meal are illustrated.

CUERNAVACA (OIAA)

917.2 10 minutes—sound—color 2

Takes us on a visit to three beautiful Mexican towns—Cuernavaca, Taxco, and Acapulco. Cuernavaca, a week-end resort, with its modern homes, beautiful flowers, and ideal climate; Taxco, a silver mining town; and Acapulco, a town whose history is as colorful as its colorful surroundings—all make for a diverting film subject.

CURING PORK COUNTRY STYLE (USDA)

641.3 17 minutes—sound 2

Shows how to cure pork by the "dry" and "brine" methods. Emphasizes such main essentials as chilling the meat to keep it cold. Using proper amount of ingredients, and giving the meat the proper amount of time to absorb the salt. One sequence shows how to construct a farm smokehouse.

CUTTING A TAPER WITH COMPOUND REST (C)

621.9 10 minutes—sound 3

Shows the operations necessary to cut a sharp and slight taper on a gear blank. Considerable detail and emphasis are given to the care and operation of the machine, the use of the compound rest for turning a sharp angle surface, the setting of a compound for turning any angle within its range, the setting of the tool for taper turning, the principles of the taper attachment, the correct setting of the taper attachment for the given angle, and the use of a protractor and a ring gage for checking the angle of taper.

CUTTING AN EXTERNAL NATIONAL FINE THREAD (C)

621.9 12 minutes—sound 3

Describes various shapes of threads and their uses, giving the characteristics of the National Fine Thread, and showing the procedures used to cut such a thread on a lathe.

Unit Value

CUTTING KEYWAYS (C)

621.9 15 minutes—sound 3

Shows the setting up of a shaft on the table of the milling machine for cutting a keyway at each end, the selection of the proper cutter, the determination of the correct speed and feed, and the setting of the machine for the correct depths and length of cut.

D-DAY MINUS ONE (OWI)

940.544 18 minutes—sound 2

Here, in one of the most exciting films ever produced, is the story of the newest and one of the most formidable branches of modern warfare—the airborne attack. In vivid, dramatic terms, the tactics of the airborne branch of our fighting forces is depicted.

DANCES OF THE NATIONS (GUTLOHN)

793.3 10 minutes—sound 3

Characteristic dances of Spain, Russia, Holland and the Argentine are presented.

DANGEROUS DUSTS (USDA)

614.84 10 minutes—sound 1

Shows losses from dust explosions and fires, and outlines preventive measures.

DASHES, HURDLES AND RELAYS (EBF)

796.4 22 minutes—sound 3

The first reel is explanation of the dashes—100 meters, 200 meters, and 400 meters. Demonstrations are given in normal speed and slow motion. The second reel presents the hurdles and relays. Three types of good form in hurdling are illustrated. Much attention is given to the techniques of passing the baton in relays.

DAVIS CUP TENNIS, 1936 (CIN)

796.34 10 minutes—silent 1

United States vs. Australia, North American Davis Cup zone finals, played on the courts of the Germantown Cricket Club in May, 1936. Slow motion and close play of each player.

DAVIS CUP TENNIS 1937 (CIN)

796.34 10 minutes—silent 1

United States vs. Australia, North American Davis Cup zone finals, played on the courts of Forest Hills, Long Island in May, 1937. Slow motion used exclusively.

DAY IS NEW (OIAA)

917.2 11 minutes—sound 1

A day in the life of the Mexican people. Picturing their varied daily activities.

DAY OF BATTLE (OWI)

623.8 12 minutes—sound 1

The story of an aircraft carrier—how she was built, and how she was destroyed in battle against the Japanese in the South Pacific.

DEFENDING THE CITY'S HEALTH (EBF)

614 11 minutes—sound 3

Describing the factors which affect the health of cities, this film shows the work of a model city health department. Activities shown include education, gathering statistics, nursing, supervis-

Unit Value

ing sanitation, laboratory analyses, child hygiene, and the control of communicable diseases. The role of the individual citizen in a health program is stressed.

DEFENSE AGAINST INVASION (OIAA)

614.4 12 minutes—sound—color 2

Walt Disney, through animation and actual photography, explains in an amazingly simple and entertaining fashion how vaccination makes the body immune from disease.

DEHYDRATION (USDA)

664.8 10 minutes—sound 1

Shows the main methods and results of commercial food dehydration. In a pictorial report it points out the importance of dehydrated food to the Armed Forces, to the housewife, and to the farmer.

DEMOCRACY (EBF)

321.8 11 minutes—sound 3

Vividly presents the nature and meaning of democracy. Describes shared respect and shared power. Discusses two conditions which have promoted growth of democracy, a balanced economic distribution and enlightenment. Like its companion film, Despotism, it deals with basic concepts in a way suitable to the junior high school level.

DEMOCRACY AT WORK IN RURAL PUERTO RICO (OIAA)

917.295 22 minutes—sound 2

Outlines briefly the history of Puerto Rico, the origin and culture of its people. It shows significant places of historical interest and discusses the agricultural resources and problems. Some time is given to the great sugar cane interests occupying the fertile coastal plains with a great majority of the farm population occupying steep hillside country of the interior; how the rural people under the guidance of the Extension Service are improving their farms and ways of living.

DESERT VICTORY (BIS)

940.536 60 minutes—sound 4

A very vivid story of the British Eighth Army's smashing victory at El Alamein and its triumphant advance across the desert to Tripoli.

DESPOTISM (EBF)

321.6 11 minutes—sound 3

Has thesis that all communities can be graded on a scale running from democracy to despotism. Introduces technique of observing communities to determine their positions on such a scale. Restricted respect and concentrated power are defined and illustrated. Explains two conditions which have promoted the growth of despotism, slanted economic distribution and a strict control of the agencies of communication. Like its companion film, Democracy, it presents basic social science concepts in simple and clearly understandable form.

DEVELOPMENT OF COMMUNICATION (EBF)

621.38 10 minutes—sound 3

The most important aspects of the long story of man's human communication are shown. Not only are the devices of communication given, but also the social, cultural, and economic effects upon human living of these devices.

Unit Value

DEVELOPMENT OF TRANSPORTATION (EBF)

380 10 minutes—sound 3

Transportation developments within the United States during the past one hundred and fifty years.

DIARY OF A SERGEANT (OWI)

355.11 22 minutes—sound 3

A real-life story of the rehabilitation of an American soldier who sacrificed both his hands for his country. Modern surgical science and a wise psychological program have given him a new chance for normal, happy living. It is a stirring actual drama that follows him up to the moment of his return to civilian life, climaxing when friends and relatives greet him without a sign of strangeness.

DIGESTION (EASTMAN)

612.3 15 minutes—silent 1

Covers the complete digestive tract-action of saliva upon food—swallowing—stomach structure—digestion of food—structure and action of both intestines.

DIGESTION OF FOODS (EBF)

612.3 10 minutes—sound 3

Both the mechanical and the chemical aspects of digestion are presented in this film, together with their controlling factors. Among the mechanical processes included are mastication, swallowing, stomach contractions, intestinal segmentation, and intestinal peristalsis. Among the chemical processes are the production of saliva and the action of ptyalin on starch, the production of gastric juice and the action of pepsin on albumin, and the production of pancreatic juice and the action of lipase on fats.

DIPHTHERIA (EASTMAN)

616.2 15 minutes—silent 1

A diphtheritic throat is compared with a normal one. The complete preparation and use of antitoxin are demonstrated. Methods of modern diphtheria control and of preventing the disease by the administration of toxin-antitoxin are shown.

DISCOVERY AND EXPLORATION (EBF)

973.1 10 minutes—sound 3

Uses animated drawings to describe the North American territory involved during the period of discovery and exploration from 1492 to 1700. Shows routes followed by explorers from the old world in seeking new routes to the East, Spanish conquests, and the mid-continent development in quest of the beaver.

DISTANCE RACES (EBF)

796.4 11 minutes—sound 3

Includes races from 1,000 to 10,000 meters and the steeplechase. The style of the distance runner is contrasted with that of the dash man. Slow-motion scenes analyze particular movements.

DISTRIBUTING AMERICA'S GOODS (EBF)

330 11 minutes—sound 3

Based on a comprehensive study of The Twentieth Century Fund, shows by animated drawings and direct photography why it costs as much as it does to distribute America's goods. Sequences are devoted to the distribution costs of the producer, wholesaler, retailer, and transportation. Shows how fifty-nine cents out of each purchase dollar goes to pay for the distribution of the article. A

Unit Value

final sequence indicates ways in which distributors and consumers can cooperate to reduce distribution costs.

DISTRIBUTING HEAT ENERGY (EBF)

536 11 minutes—sound 3

Four sequences of scenes make up the content of this film. First sequence: deals with different kinds of heat sources; second sequence, demonstrates how furnace fuels are burned in coal, oil, and gas furnaces. The third sequence treats the development of home heating from the Colonial fireplace to the modern steam radiator. In the fourth sequence the mechanics of heat transfer by conduction, by convection, and by radiation are explained.

DIVIDE AND CONQUER (OWI)

940.548 14 minutes—sound 2

Showing how Hitler used all the devices of propaganda and espionage to destroy the morale of the French people, this film illustrates the Nazi techniques of spreading hate and fear, distrust and confusion, and the use of propaganda—words—to pave the way for the Nazi armies.

DODDER (EBF)

682.13 10 minutes—sound 3

Entire life story of the dodder, one of the best known of the group of parasitic flowering plants, is shown by means of time-lapse photography, accompanied by an explanatory narrative. Among the more impressive features is the presentation of the dodder twining about the host plant. Animation aids in revealing details in the structure and operation of the suckers. The destructive character of this plant is demonstrated, as well as the beauty of the flowers.

DO UNTO ANIMALS (USDA)

636 21 minutes—sound 2

Approved methods of transporting and handling livestock that will reduce yearly loss from injuries received in marketing process.

DOVER (OWI)

940.534 10 minutes—sound 1

Dover, Britain's front line on the Channel Coast, no longer on the defense, prepares for the offensive to come.

DOWN WHERE THE NORTH BEGINS (OIAA)

918.6 28 minutes—sound—color 3

Shows Ecuador's most effective features of landscapes, building, and life.

DRILLING, BORING, AND REAMING (C)

621.9 10 minutes—sound 3

Presents in considerable detail the centering of a gear blank in an independent chuck, the selection and setting of the tool for facing the gear blank; drilling, boring, and reaming with the tail center; and reviews the use of the taper attachment in the making of a taper bore. The job selected for this demonstration is a rough steel forged pinion gear blank.

DUTCH TRADITION (OWI)

914.92 27 minutes—sound 3

This comprehensive documentary film shows the people of Holland and the Netherlands, East and West Indies; their back-

Unit Value

ground in time of peace and their contribution to our common fight against the Axis; presents the life, customs, resources, and industries of these people.

EARLY SETTLERS OF NEW ENGLAND (EBF)

973.2 10 minutes—sound 3

Produced in collaboration with Chester R. Arnold, Director of Pioneers' Village, Salem, Massachusetts. Re-enacts the lot of Salem's hardy pioneers about 1626. Types of people; the proximity of their bark wigwams and dugouts to the seashore; their direct dependence upon the sea and the land for food; the need for mutual assistance; division of labor; care of the sick; problems of crop cultivation; relationships with England; and the background beginnings of American democracy are portrayed.

EARTH AND ITS SEASONS (EBF)

525.5 10 minutes—sound 3

Explains clearly why we have changes of seasons, vernal and autumnal equinoxes, summer and winter solstices.

EARTH IN MOTION (EBF)

525 10 minutes—sound 3

This technical film presents the dynamic aspects of the earth as a planet. The earth's sphericity is demonstrated, while notation is established by star trails and the Foucault pendulum. Proof of the earth's revolution about the sun in respect to stars and by the annual parallax of stars. Concludes with phenomena associated with this revolution, such as, characteristics of orbit, aphelion and Perihelion, law of areas inclination of axis, and seasons.

EARTH MOVERS (OWI)

368 30 minutes—sound 2

How the heavy bulldozers and tanks helped in the war by moving earth for air strips, roads, etc.

EARTH'S ROCKY CRUST (EBF)

551 10 minutes—sound 3

Presents geology in its dynamic aspects and aims to show that the forces now changing the face of the earth are responsible for its present appearance. The basic fact of geology—the building up and breaking down of rocks and land forms—is graphically shown through presentation of the water cycle, the formation of rocks, and the crumbling of rocks. Animated diagrams, models and illustrative scenes.

ELEMENTS OF ELECTRICAL CIRCUITS (EBF)

621.31 12 minutes—sound 3

Consists of seven sequences: A—circuits in the home, B—conduction of electrons, C—resistance in a simple circuit, D—current flow in simple circuit, E—electromotive force, F—Ohm's law and its application, G—short circuit and conclusion.

ELECTROCHEMISTRY (EBF)

541.37 10 minutes—sound 3

Portrays the electrolytic decomposition of hydrogen chloride and the production of electric current from the action of chlorine and hydrogen on platinum. An explanation of the storage battery integrates both processes. Electroplating illustrates participation of electrodes; electrorefining illustrates preferential discharge;

Unit Value

and electrolysis of sodium chloride to yield caustic soda illustrates participation of the solvent. The production of aluminum from a molten electrolyte concludes the subject.

ELECTRODYNAMICS (EBF)

538 10 minutes—sound 3

Direct photography demonstrates cause and effect, while animation explains the fundamental principles of current electricity and electromagnetism. Galvani's discovery of current electricity; magnetic field about a current carrying wire; magnetic field of a coil; electro-magnets; Rowland's experiment; magnetic hypothesis; recalescence; induction by a magnet; A. C. generator; D. C. generator; induction by an electric current; and transformers are concepts presented.

ELECTRONS (EBF)

541.2 10 minutes—sound 3

By means of various photographic techniques, including animation, the hypothesis that electricity consists of unit elementary charges is supported by observation of phenomena associated with the conduction of electricity in liquids, gasses, and vacuums. Conclusion: that the fundamental unit of an electrical charge is the electron.

ELECTROSTATICS (EBF)

537 10 minutes—sound 3

This deals with static electricity as fundamental to an understanding of the modern theories of electricity. It explains how positive and negative electrification are produced and by animated drawings shows the part played by insulators and conductors. Explanation of the movement of charges in the electroscope, the Compton electrometer, the static machine, and Nature's display of static electricity, lightning.

ELEPHANTS (EBF)

591.5 11 minutes—sound 3

Attention is given to elephants' physical features, food, methods of eating, drinking and cleansing themselves. An elephant is put through a series of tests for a circus buyer who engages the trainer to condition two young elephants. They learn to stand on their front and hind feet, sit on barrels, walk a plank, ring a bell, and obey other commands.

ENDOCRINE GLANDS (EBF)

612.4 11 minutes—sound 3

Shows the nature and function of the parathyroid, pituitary, pancreas and thyroid glands. Gives the influence of calcium and parathyroid extract on muscular control, the effect of pituitary hormones on egg development, the preparation and use of insulin in the treatment of diabetes, the characteristics of hyper and hypothyroidism, and the stimulation of the mammary gland by pituitary and ovarian hormones.

ENERGY AND ITS TRANSFORMATIONS (EBF)

531 10 minutes—sound 3

Potential, kinetic and radiant energy, as manifested in mechanical, chemical, and thermal form, are vividly illustrated and explained. The principle of conservation of energy, and the concepts "power" and "work" are demonstrated in experiments. The film closes with a review of present and future sources of energy.

Unit Value

ENROUTE (FRENCH)

355 10 minutes—sound 1

Training of West Indies Battalion in the United States before being shipped overseas.

ESKIMO CHILDREN (EBF)

919.8 11 minutes—sound 3

Activities of an Eskimo family living on Nunivak Island, off the Alaskan coast. How the Eskimos solve the problems of obtaining food, shelter, and clothing is shown, as well as the tasks of parents and children, their handicraft arts, their recreations, family and community relationships, traditional manners and customs, and the changes resulting from recent outside influences.

EVERYBODY'S WAR (OWI)

940.537 11 minutes—sound 1

Civilians and the war.

EVOLUTION OF THE OIL INDUSTRY (USBM)

665.5 40 minutes—silent 1

Tells a comprehensive story of the petroleum industry, starting with scenes depicting Biblical episodes in which petroleum pitch or virumen may have been an important material. The story moves rapidly to the Western hemisphere with scenes of American Indians and, later, white men, finding beneficial uses for rock oil. Oil-well drilling is followed across the prairies, invading cities and reaching the Pacific ocean.

EXPLORING THE UNIVERSE (EBF)

520 10 minutes—sound 3

Demonstrates the principles and construction of telescopes. Shows by animation the binaries, trinaries, the variables and why they vary, galaxies and galactic rotation. Shows also what will happen to the Big Dipper in 100,000 years and the theory of the expanding universe.

EYES—Advanced (EASTMAN)

617.7 15 minutes—silent 1

A young man draws and paints a rather elaborate diagram of the eye which then becomes the diagram on which we are shown the various structural parts in detail. The anatomy is further shown by photography and by the dissection of an eye with the retina, etc. seen thru the microscope. Clear demonstrations of how to correct defects in focusing are given. Approved way of removing foreign objects from the eye, correct lighting precautions, etc. are effectively shown.

EYES—Elementary (EASTMAN)

617.7 15 minutes—silent 1

Photography and diagrams point out similarities of the eye and camera. Action of the iris is clearly shown and also focusing and pathway of light impulses to the brain. Correct lighting in classrooms is stressed and demonstrations of the wrong and right way given.

EYES AND THEIR CARE (EBF)

617.7 10 minutes—sound 3

Emphasizes the importance of good vision and explains the structure of the eyes and their care.

Unit Value

FAR WESTERN STATES (EBF)

917.9 10 minutes—sound 3

Describes the economy of the states of Washington, Oregon, California, and Nevada, including a brief historical resume of progress made in the use of resources in this great region. Sectional contrasts, with respect to climate, topography, people, and population densities, are shown. Mining, lumbering and agricultural activities are portrayed.

FARM ANIMALS (EBF)

636 11 minutes—sound 3

Follows a farmer through a typical day of caring for his animals. Farm scenes include: a newborn calf and colt, young pigs and lambs nursing, a goat and kids frolicking, and the shearing of sheep. Natural sounds are provided.

FARM BATTLE LINES (USDA)

630 10 minutes—sound 1

An interesting presentation of the problems of production which face the farmer. In addition to producing food, the farmer meets war production needs through the raising of cotton and peanuts.

FARMERS FACE THE FUTURE (USDA)

630.973 11 minutes—sound 1

Reviews the wartime production of America's 6,000,000 farmers, the magnificent job done for our Armed Forces, Allies, and home front workers, and points up some of the problems farmers are now facing and will face in the future. The film gives no final answers, but is a tribute to the past achievements of farmers and a visual testimonial to their future.

FARM GARDEN, THE (USDA)

635 19 minutes—sound—color 2

Gives an over-all picture of planning and working a garden from March through October—deciding upon vegetables to plant, laying out the garden to take care of early and late crops, preparing the soil, planting at the proper time, the continuous fight against weeds and pests, and finally harvesting the fruits of labor.

FARMERS AT WAR (OWI)

631.1 11 minutes—sound 1

Shows a farm community and its contributions to the war effort.

FASHION'S FAVORITES (DU PONT)

677.4 33 minutes—sound 3

A detailed story of the manufacture of cellulose acetate rayon and of viscose rayon as done by du Pont. Very complete factory scenes and laboratory tests.

FEET, THE (EASTMAN)

616.7 15 minutes—silent 1

Structure and arrangement of the arches; best mechanical use of the foot; effect of improper shoes. The relation of heels to posture, and the characteristics of fallen arches. How closely related good feet are to efficiency and to the enjoyment of life.

FIESTAS OF THE HILLS (OIAA)

394 10 minutes 1

A colorful pictorial record of the religious fiesta of the Via Crusis in Mexico. Also shown is the pilgrimage to Chalma. Symbolic dances and elaborate processions add to the interest of the film.

Unit Value

FIGHT FOR THE SKY (OWI)

940.544 20 minutes—sound 2

Footage taken by gun cameras shows work of fighter pilots.

FIGHT THAT FIRE (TF)

614.84 10 minutes—sound 3

Describes and illustrates various types of fires and the effective means of bringing them under control. Uses and action of fire extinguishers is explained. Safety precautions are emphasized.

FIGHTING FRENCH NAVY (FR)

940.534 9 minutes—sound 1

Remarkable scenes of the brave French sailors and officers who have escaped from their conquered country to fight for its liberation.

FILM COMMUNIQUE NO. 1 (OWI)

940.53 19 minutes—sound 2

In three parts: LITTLE DETROIT, shows workers of all creeds and colors helping to rush our vehicles into action in response to the call. Part two: TROOP CARRIER COMMAND, is the story of the transformation of the island of Wau off New Guinea into headquarters for the Troop Carrier Command. Part three: THE PRICE OF RENDOVA, is a grim reminder that we had to pay in men and material for the beachheads we seized in the South-West Pacific.

FILM COMMUNIQUE NO. 2 (OWI)

940.53 19 minutes—sound 2

Part one: DAY WITH A-36S,—a typical day with this new attack bomber adapted from the P-51 Mustang. Part two: REPORT FROM BERLIN, is a captured German industrial film that gives a thought provoking picture of Germany's war production, still able to deliver terrific blows.

FILM COMMUNIQUE NO. 3 (OWI)

940.53 21 minutes 2

HITTING THE BEACHHEAD—A story of the huge landing craft which spearhead our amphibious invasions of enemy shores. DOG-FIGHT—Thunderbolt fighters driving off Nazi planes. SUNDAY MORNING SERVICE SOMEWHERE—Men at prayer before battle. CASEY JONES—Hitler's communications must be destroyed, new tracks laid, and trains kept rolling. HITTING THE SILK—American paratroopers go out on a mission to Lae, New Guinea.

FILM COMMUNIQUE NO. 4 (OWI)

940.53 21 minutes—sound 2

AERIAL TECHNIQUE—showing action during raids by our fliers on Hansa Bay, Wewak and Rabaul, features skip and "parafrag" bombing. ROLL OF HONOR—rebuilding by Negro engineer troops of the Munda airstrip. FIFTH ARMY—follows our infantry from Salerno up through devastated Italian cities across the Volturno River.

FILM COMMUNIQUE NO. 5 (OWI)

940.53 20 minutes—sound 2

P-47s COME TO TOWN—how they are shipped overseas. "Two Million Dollar Hill" in Italy. Hawaiian Jungle Training-Film. Tarawa.

Unit Value

FILM COMMUNIQUE NO. 7 (OWI)
940.53 20 minutes—sound 2
The capture of the Japanese stronghold on the Marshall Islands by combined naval and land forces.

FILM COMMUNIQUE NO. 8 (OWI)
940.53 18 minutes—sound 2
Contains some of the most exciting low-level bombing shots ever filmed. Sequences show the establishment of a beachhead in Italy, vicious Nazi dive-bombing attacks, surgical operations on the wounded in the field of battle.

FILM COMMUNIQUE NO. 9 (OWI)
940.53 20 minutes—sound 2
Contains Air Forces footage, a comic strip feature, "Private Snafu" and a combat sequence covering General Stillwell's forces in North Burma. Shows the terrain from the soldiers' eyes, and is an introduction to Stilwell's typical soldiers—Chinese Joe and G.I. Joe.

FINDING YOUR LIFE WORK (VOC. GUID)
371.42 20 minutes—sound 5
Opening with an attractive picture of a boy fishing, this film quickly leads up to the fact that experienced fishermen are—particular about their baits. In getting a job, the baits required are personality, training and experience. These points are then discussed: your strong points, weaknesses, likes and dislikes, intelligence, special aptitudes, educational record, character. Interests and accomplishments, hobbies, determination, economic assets, and what you really want to do. A fine film.

FIREMAN (EBF)
614.84 11 minutes—sound 3
The organization and activities of a company of firemen in a modern city. A real fire affords an opportunity to observe the firemen answering the alarm and extinguishing the blaze with the latest type of fire-fighting apparatus.

FIRE WEATHER (USDA)
614.84 20 minutes—sound 2
Shows methods of fire protection, devices for assembling and evaluating weather reports, maps made daily by the forest protection service and the fire weather trucks.

FIRST AID—Care of minor wounds (EASTMAN)
614.8 5 minutes—silent 1
Stresses the importance of immediate care for even the slightest wound. Demonstrates proper method of applying sterile dressings.

FIRST AID—Carrying the injured (EASTMAN)
614.8 5 minutes—silent 1
Demonstrates the making and using of stretchers in emergencies, and the methods of carrying injured persons without stretchers.

FIRST AID—Control of bleeding (EASTMAN)
614.8 5 minutes—silent 1
Shows, with actual photography and animated diagrams, accepted methods of control of arterial and venous hemorrhages.

FIRST AID—Control of bleeding and minor wounds (EASTMAN)
614.8 15 minutes—silent 1
A combination of the two reels: *Control of Bleeding* and *Care of Minor Wounds.*

Unit Value

FIRST AID—Life Saving (EASTMAN)
614.8 15 minutes—silent 1
Shows various approaches and holds used in rescuing the endangered swimmer. Methods of resuscitation shown include use of the inhalator.

FIRST AID—Wounds and Fractures (EBF)
614.8 10 minutes—sound 3
Illustrates proper ways of determining the nature and extent of injuries, summoning medical help, preventing hemorrhage, applying splints, and avoiding shock.

FIVE C CLUBS OF CUBA (USDA)
630.972 10 minutes—sound 1
Activities of Cuban boys and girls in club work, similar to our 4-H clubs.

FLATBOATMAN OF THE FRONTIER (EBF)
386 10 minutes—sound 3
Reveals how the early settlers of the Ohio Valley were required to be Farmer Boatmen through their dependence on the soil for livelihood and on the rivers for transportation. Good frontier personalities, speech and music are interwoven throughout.

FLEET THAT CAME TO STAY (USN)
940.545 20 minutes—sound 2
Opens with the invasion of Okinawa on Easter Sunday, 1945; pictures the seven days of waiting for the enemy counterattack and gives in detail the offensive and defensive action used by suicide pilots against the fleet, which constituted the longest supply line in the history of the world. This film presents the answer to the question, "Could a fleet stand up against a mass of land-based planes?"

FLOOD WEATHER (USDA)
551.5 30 minutes—sound 2
Complete study of the ways of determining the weather, and recording and forecasting the flood stages of rivers. Scenes depict the flood waters of the Potomac in 1936 and those of the Ohio Valley in 1937.

FLOWERS AT WORK (EBF)
528.13 11 minutes—sound 3
The parts and the physiology of plant flowers are artistically presented by animation. Time-lapse photography interspersed with animation then presents various types of flowers and different methods of pollination. Relation of insects to cross-fertilization of flowers is clearly illustrated.

FOOD AND GROWTH (EASTMAN)
613.2 15 minutes—silent 1
A feeding experiment with white rats, actually carried on in a sixth-grade classroom, is used to demonstrate the food value of milk as compared with the values of coffee and candy. Shows the feeding, weighing, and comparative growth records of the rats.

FOOD AND MAGIC (OWI)
641 10 minutes—sound 1
Presents the problem of food waste and points out the necessity for sharing, playing square, for more production and conservation on our home front weapon, FOOD.

Unit Value

FOOD FOR FIGHTERS (OWI)

613.2 14 minutes—sound 1

A simple story of how our soldiers are being fed.

FOOD SERIES—Vitamin B_1 (EASTMAN)

613.2 15 minutes—silent 1

The story of a pigeon whose diet was lacking in B1 and his remarkable recovery when treated with it. The effect of this deficiency is also shown with rats and humans and results after treatment.

FOOD SERIES—Vitamin D (EASTMAN)

613.2 15 minutes—silent 1

We are shown what happens to a poorly fed family whose diet is lacking in this vitamin. Poor bone formation in a bowlegged baby, rickets, poor teeth can all be results of a lack of vitamin D. Then we are shown what happens when we get enough vitamin D, from the sun, cod liver oil, and other sources.

FOODS AND NUTRITION (EBF)

613.2 11 minutes—sound 3

Animated treatments portray normal dietary requirements of carbohydrates, fats, proteins, minerals, vitamins, and water.

FOOTBALL THRILLS—1939 (C)

796.3 10 minutes—sound 3

Newsreel scenes from the year's big football events. Games covered include: Cornell-Ohio State; Notre Dame-Navy; Northwestern-Oklahoma; Harvard-Princeton; Pennsylvania-Michigan; Carnegie Tech-Pittsburgh; Harvard-Yale; Army-Navy. Winning plays in closeups.

FOOTBALL THRILLS—1940 (C)

796.3 10 minutes—sound 3

Plays from the following games are shown: Cornell-Dartmouth; Tennessee-Duke; Fordham-Tulane; Pennsylvania-Yale; Michigan-Minnesota; Army-Navy; and several others.

FOOTBALL THRILLS—1941 (C)

796.3 10 minutes—sound 3

Peak plays from the following games: Army-Navy; Duke-Georgia Tech; St. Mary's-Duquesne; Columbia-Princeton; Minnesota-Northwestern; Harvard-Yale; Navy-Notre Dame.

FOR AMERICA WE SAVE (FIRESTONE)

678 28 minutes—sound 2

Practical suggestions for prolonging the life of your tires.

FOR HEALTH AND HAPPINESS (USDA)

649 10 minutes—sound—color 2

Shows the importance of good food and exercise in building strong, healthy bodies, and correct development of the body from babyhood to adulthood, with suggested diets and physical activities.

FOREST RANGER (USDA)

634.9 33 minutes—sound 2

Explains the duties and services performed by forest rangers, and, being rich in natural scenic effects, lends itself readily to a variety of curricular applications.

Unit Value

FOREST TREASURES (VENEER)

684 25 minutes—sound 2

World wide search for rare woods and the story of their utilization in plywood and veneers from Egypt of the Pharoahs to England's luxury liner—the "Queen Mary."

FORMATION OF SOIL (EASTMAN)

551.3 15 minutes—silent 1

Introduces the student to the rock-soil cycle by means of demonstrations, animations, and actual photography. The story of the disintegration of rock includes the work of the weather, stream erosion and transportation, glaciers, wind and waves, rain and air, plants and animals.

FREEDOM AND FAMINE (USDA)

940.531 10 minutes—sound 1

Through the daily activities of a transportation official and his family we gain an understanding of the struggle even fortunate individuals must make for an existence, what rationing means in France, and the plight of less fortunate people,—starving children who must be fed or left to die.

FREEZING FRUITS AND VEGETABLES (USDA)

664 15 minutes—sound—color 2

Shows how to prepare and package fruits and vegetables for freezing in home freezer or in commercial locker plant. Illustrates with step-by-step close-ups recommended methods for corn, broccoli, strawberries, and peaches. Demonstrates special home-made equipment for filling and sealing packages. Gives you the answer to such questions as: How long to scald vegetables, how to keep fruit from darkening, how to sweeten fruit, and how to seal different types of containers.

FRENCH CANADIAN CHILDREN (EBF)

917.1 11 minutes—sound 3

Describes the home, school and community life of children in a French-Canadian farm family. Old World influences affecting the speech, manners, and customs of these northern neighbors are striking.

FROG, THE (EBF)

597.8 10 minutes—sound 3

The entire life cycle of the frog is presented, aided by many stop-motion scenes and miscroscopic views. The development of the embryo is thus brought to the screen in a continuous scene of only a few seconds. The changes taking place in the tadpole stage are carefully portrayed.

FROM FLOWER TO FRUIT (EASTMAN)

582.13 15 minutes—silent 1

Remarkable time-lapse motion photography shows the development of the rose, lily, and apple. The opening of a flower; the functions of the sepals, petals, stamens, and pistils. Various methods of pollination, including artificial pollination are shown. Animation shows the complete process of fertilization.

FROM MINE TO CONSUMER (AM. BRASS)

669.3 30 minutes—silent 1

Shows how the copper-bearing rock is mined, and transported to the smelters. How the ore is crushed, and most of the waste

Unit Value

material eliminated; how it goes through roasters, furnaces and converters, resulting in "blister copper." We also see copper and brass sheets, strips, and cakes being made. Lastly the finishing, trimming and inspection of the sheet metal is shown.

FRUITS, VEGETABLES, AND COOPERATION (USDA)

631.18 18 minutes—sound 2

Benefits of cooperative marketing-growing and co-operative marketing of celery, lettuce, potatoes, cherries, cranberries, mushrooms, peaches, apples, and citrus fruits.

FUELS AND HEAT (EBF)

536.7 11 minutes—sound 3

Explains the role of carbon in fuels, the manufacture and storage of carbohydrates by plants, the way coal and oil were produced by nature, and how man extracts them. The process of combustion is portrayed by animation. Describes molecular action in portraying the relation of heat to temperature. Steam and internal combustion engines are explained.

FUNDAMENTALS OF ACOUSTICS (EBF)

534 10 minutes—sound 3

The phenomenon of hearing and the modification of sound between the source and the hearer are emphasized in this film. The specific elements explained or demonstrated are velocity of sound, refraction, range of hearing, lowering intensity, attenuation in air, eliminating high and low frequencies, reverberation and focusing of sound.

FUNDAMENTALS OF DIET (EBF)

613.2 10 minutes—sound 3

Outlines the types of animals with respect to their food habits and the classes of food which man has learned to eat. The uses of food in the human body are shown. Experiments with animals illustrate the results of a number of food deficiencies.

FUNDO IN CHILE (OIAA)

630.983 20 minutes—sound 2

A contrast of the new farming methods with the old on the large fundos (ranches) of Chile. Special emphasis is laid on the trends toward modernization. There are good sequences too, concerning the daily life of the fundo workers and their families.

FUNGUS PLANT (EBF)

589.2 10 minutes—sound 3

Emphasis is given to the various mushrooms whose growth and reproduction are illustrated by time-lapse photography and animation. Molds and other fungi are also presented by these same techniques. Their economic importance is indicated.

FURNITURE CRAFTSMAN (EBF)

684 11 minutes—sound 3

Describes the roles of the designer and skilled craftsmen in making custom-built furniture. Pattern making, laying out, band sawing, power planing, joining, lathe turning, grooving, gluing, carving, and finishing stages are studied in closeup detail. The interrelation of hand and machine-tool operations and skills required for precision wood-cutting are demonstrated.

Unit Value

FURY IN THE PACIFIC (OWI)

940.542 20 minutes—sound 2

This is the first film produced jointly by the armed forces for public showing, combining footage from the Army, Navy, Marine Corps, Coast Guard, and Army Air Forces. It unfolds with dramatic vigor the problem of a typical combined amphibious action in the Pacific.

GARDEN FOR VICTORY (BETTER HOMES & GARDENS)

635 11 minutes—sound 2

Planting and care of victory gardens; explains the role food plays in total war.

GEOLOGICAL WORK OF ICE (EBF)

551.31 11 minutes—sound 3

The major portion of this film is devoted to the story of glaciers, the types of glaciers, formation, glacial movement, gradation and transportation by glaciers, topographical results of glacier activities as evidenced by moraines, eskers, striated and grooved rocks, cirques, hanging valleys and fjords.

GEORGE WASHINGTON (EASTMAN)

921 Four reels, each reel 10 minutes—silent 1

Prepared at the request of the United States George Washington bicentennial commission. The content of the films is indicated by the titles of the four reels: Reel 1—Conquering the Wilderness; Reel 2—Uniting the Colonies; Reel 3—Winning Independence; Reel 4—Building a Nation. (May be ordered separately or all together—each reel 1 unit.)

GLACIER NATIONAL PARK (EBF)

917.86 12 minutes—sound 1

Hiking across a glacier, views in the park, glaciated valleys. Iceberg Lake. Glacier Park flowers, beavers, birds, woodchucks, mountain sheep. An Indian camp, Indian life. Glacier Park Hotel, Swiftcurrent Lake, a chalet, a trail party, tent camp, mountain climbing, crossing a crevasse, trout fishing.

GOATS (EBF)

636.3 10 minutes—sound 3

Two kids are followed from birth until they are about two months old in play and in mischief. The interesting life of goats and kids; care and feeding, and milking are explained. Old Billy goat has been taught to pull a wagon, and Johnny drives Billy to deliver milk in the village.

GOODBYE MR. GERM (TB)

616.24 14 minutes—sound 3

Animated cartoons and photographs of actual scenes. The germ of tuberculosis tells his life story to Professor Buzzle, who has discovered how to talk to germs.

GOOD NEIGHBOR FAMILY (OIAA)

173 20 minutes—sound 2

Similarities and differences of Latin American and North American family life significantly explained to better understanding and unity between the Americas.

GRACIAS AMIGOS (OIAA)

940.537 15 minutes—sound 2

The dramatic story of the contribution made by our neighbor

Unit Value

southern republics to the winning of the World War II by furnishing raw materials rapidly when other sources of the same materials were cut off. Rubber, nitrates, quartz, sisal, tin, manganese are only a few of these. Someone had to furnish these needed materials,—someone had to want to furnish them. This is a story of the good neighborliness of it all.

GRAIN THAT BUILT A HEMISPHERE (OIAA)

633.1 10 minutes—sound—color 2

What corn has meant to civilization is dramatically told in this Walt Disney cartoon. From the Indian's discovery of the uses of corn to the modern day's use of it in products of peace and wartime.

GRASSLAND (USDA)

631.4 10 minutes—sound 1

Discusses the problem of soil conservation on the grazing lands of the arid Southwest. Sheep and cattle on the range and approved methods of attack on the evils of overgrazing.

GRAY SQUIRREL (EBF)

591.5 11 minutes—sound 3

Portrays the life of this interesting little animal. Baby squirrels are taught to play and climb. Squirrels from age of one week until they are grown are studied.

GREEN PLANT (EASTMAN)

581 15 minutes—silent 1

Shows how living things are dependent for food upon the green plant. The latter's processes of food-making and growth are diagrammed. Sunshine and chlorophyll, water and air, acting jointly, are seen to produce sugar and starch, which are stored in roots, stems, leaves, and fruits.

GROUND WATER (EBF)

551.4 10 minutes—sound 3

The film brings to attention many phenomena that take place below the surface of the earth. Artesian wells, springs, water table, caves, and wells, are explained by animated drawings and illustrated photography. Geysers, sink holes, petrifaction, concentration of useful minerals, and geode fillings are explained by outstanding examples in the U. S.

GROW YOUR OWN (USDA)

635 20 minutes—sound 2

This picture sets forth in light vein the essentials of good gardening. Preparation of the soil, how to lay out a garden, planting, transplanting, cultivating, weed and pest control, and watering. A "dream" sequence shows by stop motion photography how plants grow. Closes with a series of humorous "DON'TS" designed to bring home, through exaggeration, the many pitfalls that might mar the success of an amateur gardener.

GROWTH OF CITIES (EBF)

323.35 10 minutes—sound 3

Explains factors which determine the location and growth of cities. Shows the general trend toward organization throughout the United States. Various types of cities and city plans are presented. Factors involved in the decentralization of the city into the metropolitan area are clearly presented. The film includes the prevailing trends of city planning.

Unit Value

GROWTH OF FLOWERS (CORONET)

582.13 11 minutes—sound—color 5

Presents the growth and life of roses, orchids, jack-in-the-pulpits, daffodils and iris. We see all these flowers emerge from the bud and burst into full bloom.

GUADALAJARA (OIAA)

917.2 18 minutes—sound—color 2

A sightseeing tour through Mexico's second largest city.

GUARDS OF THE NORTH (NFB)

971 11 minutes—sound 2

Shows the part played by Canadian troops in building up the defenses of Iceland, now jointly occupied by British and American forces.

HAND INDUSTRIES OF MEXICO (CORONET)

917.2 10 minutes—sound—color 5

Beginning with the hand molding of roof tiles, so characteristic of the country, this film takes us through the various steps in the making and decorating of glazed ornamental tile, handmade shoes, silver jewelry, and the exquisite lacquer work of the Patzcuaro Lake region. Emphasis is not only on the art objects themselves, but also on the place of native arts in the lives of our Mexican neighbours.

HANDLE WITH CARE (OWI)

662.2 20 minutes—sound 2

Chemistry is playing an increasingly important role in this war. Animated diagrams tell the story of TNT.

HARVEST FOR TOMORROW (USDA)

631.4 30 minutes—sound 2

Products of the soil of New England and the dairy region of the Northeast. All characters are real farm and village people. Scenes of New England countryside—its orchards, pastures, and valleys.

HEART AND CIRCULATION (EBF)

612.1 10 minutes—sound 3

The mechanics of the pulmonary and systematic systems detailed, with delineation of the heart action. Amplified heart beat sounds. Microscopic scenes of capillary action. Blood pressure and its relation to health.

HENRY BROWNE, THE FARMER (OWI)

326 11 minutes—sound 1

A simple and moving story of a Negro farmer and his family and what they are doing to help win the war.

HERE IS CHINA (OWI)

915.1 30 minutes—sound 3

A portrayal of the home life of Chinese people. We see the Chinese fishing in rivers, tending their rice paddies and other agriculture. We watch them in various modes of transportation throughout their immense country. Water buffalo fights, the destruction wrought by floods, and the modernization of Shanghai come before the cameras.

HEREDITY (EBF)

575.1 10 minutes—sound 3

Through the use of animated charts and animal picturization, Mendelian laws of inheritance are presented.

Unit Value

HERITAGE (NFB)
630.971 17 minutes—sound 3
Tells the story of the opening up and development of the Canadian West. Today, as the film emphasizes, new methods of farming and irrigation are putting the West on a new basis.

HEROES OF THE ATLANTIC (NFB)
940.545 15 minutes—sound 2
The first revelation in human terms of the work of the Merchant Navy in the crucial battle of the Atlantic. This is the story of the "turn around" at Canada's Atlantic ports, where sailors of every nationality throng the bowling alleys, cafes and reading rooms. Training of new recruits.

HIDDEN WEAPONS (USDA)
631.1 10 minutes—sound 1
Reveals waste and carelessness of home front saboteurs on the farm. Constructive examples are given on how to conserve materials, produce and valuable time.

HIGH OVER THE BORDER (OIAA)
598.2 22 minutes—sound 2
An example of the unity of the two hemispheres as shown by the migration of birds between North and South America. The migrations of humming birds, wild ducks and other types of birds are described and their flights shown in detail through the medium of actual photography and animated maps.

HIGH PLAIN (OIAA)
918.4 20 minutes—sound 2
A story of the descendants of the Aymara tribe living on the high plain of Bolivia. For 20 centuries, even before the time of the Incas, they have tilled the soil of the plain and have retained most of their primitive customs and modes of working and living.

HIGH SPOTS OF A HIGH COUNTRY (OIAA)
917.28 20 minutes—sound—color 3
An introduction to Guatemala with its volcanoes, its market places, its craftsmen, its coffee plantations, and the pictorial beauty of its natural scenery.

HIGHWAY MANIA (GUT)
629.213 20 minutes—sound 3
Features Lowell Thomas and illustrates through typical accidents the dangers of reckless driving. Constructive suggestions and criticisms on how to correct this evil.

HILL TOWNS OF GUATEMALA (OIAA)
917.28 9 minutes—sound—color 2
A story of the simple lives, the handicrafts, the clothing, and the age-old customs of the Indians that cluster about Lake Atitlan.

HISTORIC SCENES ALONG THE MOUNT VERNON HIGHWAY (USDA)
917.55 15 minutes—silent 1
Colonial homes and public buildings of historic interest on the highway from Washington, D. C., to Mount Vernon.

HISTORICAL INTRODUCTION TO THE STUDY OF CHEMISTRY (EASTMAN)
540.9 15 minutes—silent 1
Scenes of the alchemists attempting to produce gold from the

Unit Value

baser metals. Shows the scientist, Joseph Priestley in his laboratory performing the experiments which lead to the discovery of oxygen.

HOME DEMONSTRATION WORK (USDA)

640 20 minutes—sound 2

This picture shows the scope of home demonstration work; representative scenes in various parts of the country.

HOME NURSING—Bed Bath (EASTMAN)

610.7 8 minutes—silent 1

Checking the room temperature, preparing the bed, preparing the patient, giving the bath, making the bed without removing the patient from it, etc.

HOME NURSING—Routine Procedures (EASTMAN)

610.7 15 minutes—silent 1

Routine procedures in caring for a convalescent.

HOME NURSING—Special Procedures (EASTMAN)

610.7 12 minutes—silent 1

Some special procedures for relieving specific conditions: cold compresses; applying hot stupes; giving a foot tub to a patient in bed; flaxseed poultice; and inhalations.

HOME ON THE RANGE (OWI)

636.2 11 minutes—sound 1

An eloquent tribute to the men of the western ranges, this film describes the contribution of the range country to the war effort—the production of wool and leather, beef and mutton.

HOME PLACE (USDA)

728.9 30 minutes—sound 2

Characteristic farm houses in various parts of the country, various types, salient features of architecture, early examples.

HONEY BEE (EBF)

595.79 11 minutes—sound 3

Describes the development of the honey bee with due emphasis upon the role of the workers, the queen, and the drones. Egg, larva, and cocoon stages in the lives of the workers are shown in detail. The building of a new cone and honey making follow in natural sequence.

HORSE, THE (EBF)

636.1 10 minutes—sound 3

After showing the role of the horse in modern life, the film follows the development and training of a colt from one week to three years of age in the Blue Grass country of Kentucky. Feeding, training, etc.

HOT ICE (NFB)

796.9 21 minutes—sound 3

The skills of ice hockey are analyzed, from the first simple rules taught to child players to the complex tactics of experts.

HOUSE-FLY (EBF)

595.77 10 minutes—sound 3

The complete story of this common but extremely dangerous pest. The four stages of the fly's life cycle are shown—egg, larva, pupa, and adult. Its activities as a carrier of disease germs are pre-

Unit Value

sented vividly. The picture illustrates effective means for eliminating the fly menace. Special emphasis is laid on community action.

HOUSE-FLY (EASTMAN)

595.77 15 minutes—silent 1

Describes development and anatomy of the house-fly, the fly as a disease carrier, and methods of control.

HOUSING IN CHILE (OIAA)

918.3 19 minutes—sound 2

A story of the progressive steps now being taken by Chile in the housing problem. A typical family in Santiago is shown first living in the slums and then being transported into one of the new housing projects.

HOW BIRDS FEED THEIR YOUNG (EASTMAN)

598.2 6 minutes—silent—color 2

A color film of a number of mother birds feeding and caring for baby birds. We see the indigo bunting, bluebird, thrush, cedar waxwing, humming bird, goldfinch, heron, snakebird, quail, and grouse.

HOW NATURE PROTECTS ANIMALS (EBF)

591.57 10 minutes—sound 3

This film presents and describes various ways by which animals are provided with devices to conceal themselves, either for the purpose of protection, or as a means of securing food. Examples are given of natural protection through fleetness of foot, mimicry, protective coloration, armor and secluded homes.

HOW TEETH GROW (EASTMAN)

617.6 15 minutes—silent 1

Traces the development of teeth from infancy to adult life, showing their structure and arrangement. Animated drawings and models show the position of the teeth in the mouth. Labels indicate the structure of a tooth and the nerves and blood vessels which surround it. Actual photography of children is used to show the teeth in position at each age level.

HOW TO GROW HOGS (USDA)

636.4 21 minutes—silent 1

Scenes taken on the Experimental farm of the Bureau of animal industry at Beltsville, Maryland, where the practices were developed, showing points to be considered in the selection of hogs for breeding purposes, care of the sow before and after farrowing and the feeding and handling of pigs up to marketing time.

I DON'T WANT TO CHANGE THE SUBJECT (US TREASURY WFD).....

784 7 minutes—sound 1

A short song presented by Mark Warnow's orchestra and Georgia Gibbs with the purchase of war bonds for its theme.

I PLEDGE MY HEART (USDA)

917.53 12 minutes—sound 1

Historic shrines, impressive structures, and picturesque spots of the National Capital as seen through the eyes of National 4-H Club Camp delegates.

Unit Value

I WANT TO BE A SECRETARY (CORONET)

651.3 15 minutes—sound 5

Deals with clerical aptitudes. Gives aspirants important clues as to their own chances of success in this particular field.

IN COMMON CAUSE (USDA)

631.4 20 minutes—sound 2

Shows what soil conservation districts have accomplished, how they are formed and operated, and the big job yet to be done in this program for increasing crop production and saving soil.

INDIA (MARCH OF TIME)

915.4 12 minutes—sound 3

Viewing realistically past British imperialism, the film contrasts both sides of a land where tradition has placed Oriental luxury side by side with squalor. While picturing the substantial social improvements and industrial developments which Britain brought about in India, it also recognizes abuses which occurred simultaneously.

INDUCED CURRENTS (EASTMAN)

621.31 15 minutes—silent 1

Through the combination of photography and graphic animation, this film helps materially in teaching the difficult topics of armatures, commutators, collector rings, telephones, and mutual and self-induction.

INDUSTRIAL PROVINCES OF CANADA (EBF)

917.1 11 minutes—sound 3

Shows the development of the various industries of Canada, which include fur, lumber, mining, fishing, and agriculture.

INDUSTRIAL REVOLUTION (EBF)

621 11 minutes—sound 3

Describes efforts of primitive man to do work chiefly with his own and animal muscles; compares methods of work from the time of the first steam-powered loom. Animated photography describes the mechanical advantage of machines. Cause and effect relationships are treated and their social and economic implications noted.

INSIDE THE WHITE HOUSE (TFC) (See regulations—last page)

917.53 10 minutes—sound 3

Views of both the exterior and interior of the White House. We see how thoroughly the credentials of newspaper men and other important personages are checked before they are admitted to the President's private office.

IN THE WAKE OF THE ARMIES (OWI)

940.531 14 minutes—sound 1

Opening with scenes of the November, 1943 UNRRA conference in Washington, this film briefly explains the purpose of the United Nations Relief and Rehabilitation Administration. President Roosevelt is pictured addressing the delegates after signing the UNRRA agreement for the U.S.

INTRODUCTION TO HAITI (OIAA)

917.29 9 minutes—sound—color 2

An educational and entertaining trip to Haiti with its wealth of historical material, its colorful people and its unusual traditions.

Unit Value

IRRIGATION—A brief outline (USDA)

626 15 minutes—silent 1

A Bureau of Agricultural Engineering film covering the important points in irrigation.

IRRIGATION FARMING (EBF)

626 11 minutes—sound 3

Shows man's ingenuity in using the resources of nature to make usable and profitable a land that would otherwise be arid and desert. Engineers harness the water which begins with melting snow; farmers use the water by various methods of irrigation such as the pipe, the canvas, and the ditch methods.

IT CAN'T LAST (OWI)

940.537 18 minutes—sound 2

The story points out that precisely because the last battle of the war seems almost in sight, we must fight, work and save even harder. The last blow in the fight is the one that makes the decision stick. It points out that it's just as hard to die at the end of a war as at the beginning—perhaps even harder.

IT'S YOUR AMERICA (OWI)

940.537 35 minutes—sound 2

Jeff is just another soldier thrown into the maelstrom of world conflict, uncertain, bitter, sorry for himself. But through his adventures, both comic and dramatic, he learns that "Liberty," "Freedom," "Justice" and "America" are more than words. By using the dramatic device of Jeff's luck-piece, a Lincoln penny, the audience is permitted to follow the course of the deep changes that take place in his mind.

JAPAN (EASTMAN)

915.2 30 minutes—silent 1

Modern, westernized urban life contrasted with the ancient modes and methods that persist in farm areas. Public school life, and religious ceremonies.

JAPANESE RELOCATION (OWI)

940.547 9 minutes—sound 1

Mass migration is shown. From the first registration of all Japanese to the final settlements in Arizona, Colorado, Utah, and Wyoming.

JAPS BOMB U.S.A. (C)

940.542 10 minutes—sound 3

Selected newsreel scenes of the Japanese attack on Pearl Harbor, Hawaii. The President's declaration of war.

JAP ZERO (OWI)

629.13 20 minutes—sound 2

Focuses upon the necessity for American pilots recognizing without hesitation and without error a P-40 and a Zero. Training film in aircraft identification.

JERRY PULLS THE STRINGS (AM. CAN)

663 38 minutes—sound 2

This story deals with the activities and achievements of two young people. The major portion consists of a series of puppet plays. A portion of the film shows a modern coffee-packing plant in operation.

Unit Value

JOHN DOE, Citizen (BFS)

352 15 minutes—silent 1

Dramatizes a small city election, illustrates indifference of average citizen to public affairs and emphasizes that if the government is not run by the people the government will run them. Death of a child is tragic means of startling voters into recognizing individual political responsibilities.

JULIUS CAESAR (EASTIN)

822.3 18 minutes—sound 3

Depicts the Forum scene which follows the assassination of Caesar.

JUMPS AND POLE VAULTS (EBF)

796.4 11 minutes—sound 3

Advantage is taken of the techniques of slow motion photography for purposes of detailed study of form. Includes demonstration of the running high-jump, running broad jump, hop, step and jump, and the pole vault.

JUNIOR CATTLEMEN (USDA)

636.2 11 minutes—sound 1

Selection of calves by 4-H Club members for feeding and competition for baby beef prizes at stock shows. Feeding, fitting and preparation for the show ring.

KEEPING FIT (OWI)

613 10 minutes—sound 1

We see how well-balanced nutritious meals keep us healthy and happy and on the job. We find out that even the strongest person needs plenty of rest, and that exercise and recreation can be fun.

KENTUCKY PIONEERS (EBF)

976.9 11 minutes—sound 3

Shows representative aspects of the early pioneering movement into the Kentucky territory. This is the life of our country in the 1780's, picturing travel along the Wilderness Road, the role of the frontier forts, and the settlers' establishment of new homes. Weaving, soap-making, cooking, candle molding, carpentry, cabin construction, schooling and square dancing are among the activities of the time.

KIDS MUST EAT (USDA)

371.7 15 minutes—sound 2

Setting is a school room with Quiz Kids and the Quiz Master, Joe Kelly acting as "Teacher." He plys his brilliant class with questions, and receives some interesting answers. Among other things we learn that there are 30 million school children in America, a lot of whom are hungry because they are not properly fed. Sometimes it is "hidden hunger." There is plenty of food in America, but sometimes it is unevenly distributed. This results in surpluses and some of this surplus could be utilized in school lunches if citizens will get together and work out a practical plan for sponsoring a community school lunch program. The Department of Agriculture offers to help communities pay for part of the food by reimbursing local sponsors 9 cents for the Type "A" lunch, or 7 cents for the Type "B" lunch, or 2 cents for the milk that children always need. Examples of the lunches appear magically bebefore the Quiz Kids, revealing complete, delicious, well balanced meals. Communities will learn how to get a similar program started in their own schools.

Unit Value

KING COTTON (JH)

677.2 19 minutes—sound 3

The film opens with scenes of cotton fields and cotton picking as a choir sings Negro spirituals. The development of the cotton gin is traced, by comparing Eli Whitney's first crude model to the gigantic modern cotton gin of today. The story of cotton unfolds in a panorama of modern farming, science and industry. The use of cotton fibers for fabrics, linters for lacquers and plastics, and cotton fabrics for tires is shown. We also see cotton being used in the building of highways.

KNOW YOUR TYPEWRITER (EASTMAN)

652 15 minutes—silent 1

Presents very vividly the importance of the typewriter in modern life, the many ways in which it can be used creatively, and the technique of operating it efficiently.

LADY MARINES (OWI)

359 20 minutes—sound 2

Interesting details of the indoctrination period are shown. Adequate provisions are made to maintain the health of the girls. This indoctrination period at Camp Lejeune, N. C., involves drilling and marching; review and inspection and actual demonstration that shows the real meaning of war. Stimulating social life and recreational opportunities of all kinds.

LAKE CARRIER (OWI)

387 8 minutes—sound 1

A film of the Great Lakes ore boats and their part in winning the war. It shows how iron ore is mined, and how the lake carriers feed it to the mills that forge the vital steel for victory.

LAND OF MEXICO (EBF)

917.2 11 minutes—sound 3

Chiefly a factual outline of the physical aspects of the country and of the nation's agriculture and market places.

LAND TO HAVE AND TO HOLD (USDA)

332.3 14 minutes—sound 2

History of free land and the growth of mortgages. Establishment of the Federal Farm Board and the Federal Land Banks to help farmers get credit. How the Farm Loan Association grants loans to farmers.

LA PAZ (OIAA)

918.4 20 minutes—sound 2

A journey through La Paz, Bolivia's capital and the "highest big city in the world." Here the ancient is blended with the modern to make a fascinating study of the contrast between the old and the new Latin America.

LEARNING AND GROWTH (EBF)

136.7 10 minutes—sound 3

Attempts to clarify some of the principles which govern the learning process. The possibilities and limitations of training infants from twenty-four to forty-eight weeks of age are described. Learning problems are analyzed with special reference to the effect of maturity. The relationships between age, growth and learning are indicated. Laws which determine learning in older children are pointed out.

Unit Value

LEATHER WORK (EBF)
675 10 minutes—sound 3
Demonstrates the making of a coin and key purse. A number of articles are displayed; and a few of the most popular types of leather are discussed. Produced under the supervision of Edward T. Hall, of the Universal School of Handicrafts, New York.

LEAVES (EBF)
581 10 minutes—sound 3
The film first suggests the significance of leaves to all life forms. Then animated drawings are employed to show the relationship of plant leaves to the other parts of a plant—roots, stems, and flowers. There is a rapid survey of several common types of leaves and of essential parts of the typical leaf. Throughout the body of the film microscopic views reveal cross-sections of leaves, thereby showing the arrangement of the leaf parts and the process of the leaf. Animation is used to explain photosynthesis. In conclusion, the film reveals plant structures which are essentially modified leaves.

LET MY PEOPLE LIVE (TB)
616.24 15 minutes—sound 3
A simple, dramatic and deeply moving story of a family of southern Negroes in which the mother succumbs to an advanced form of tuberculosis. The daughter upon advice from the minister consults a doctor and finds that she too has the disease, but with the proper rest and care is eventually cured. The brother finds that his body was able to withstand the disease. Chorus of colored singers give background music.

LETTER FROM BATAAN (OWI)
940.539 14 minutes—sound 2
In the jungles of Bataan, two American soldiers, unable to see enemy planes because of night blindness, are hit by a Jap bomb. Pete is killed outright, Johnny dies on the operating table, his last words, "I've got to write a letter." Johnny's letter is a plea to the folks at home to see to it that other American soldiers have the things he and Pete lacked on Bataan—food so that they won't have night blindness and hunger cramps, guns and shells and planes so that they can fight.

LIFE HISTORY OF THE YELLOW FEVER MOSQUITO (EASTMAN)
632.77 15 minutes—silent 1
Picturing the complete metamorphosis of the mosquito, this film will be of particular assistance to students in biology and entomology, and will be helpful also to classes in health and sanitation.

LIFELINE (OWI)
940.547 20 minutes—sound 2
Record of the opening attack against Rendova and Munda, the Japs' counter attack, and the magnificent job done in evacuating American wounded and saving their lives. Shows how medical supplies from America mean the difference between life and death for our fighters.

LIFE IN OLD LOUISIANA (EBF)
976.3 10 minutes—sound 3
Portrays representative aspects of Louisiana and its key city, New Orleans, during the years of Creole dominance.

Unit Value

LIFE IN SOMETOWN, U. S. A. (TFC) (See regulations—last page)

340 10 minutes—sound 3

A comedy about what might happen in almost any American town if all the obsolete laws on the statute books were suddenly enforced . . .

LIGHT WAVES AND THEIR USES (EBF)

535 10 minutes—sound 3

This elementary presentation of light includes a comprehensive explanation of the principles of reflection with plane, concave, and convex mirrors. Refraction is clearly revealed in connection with the lenses and with special reference to the human eye. The principles and applications of interference are vividly portrayed. This is followed by interesting sequence on polar screens, the electromagnetic spectrum, and the quantum theory. Animation is employed extensively to visualize otherwise intangible processes.

LIMA (OIAA)

918.5 17 minutes—sound 2

The beauties of Peru's capital city, the City of Kings and the colonial capital of the Spanish empire in the Western Hemisphere. The rich historical background is sketched, and the modern life of the city is pictured against the background of many beautifully preserved colonial palaces and buildings.

LIMA FAMILY (OIAA)

918.5 20 minutes—sound 2

A day in the lives of the members of one of the upper-class families of Lima, the capital of Peru. We see a cultured, modern, happy group of people not unlike those in the same class in the United States. There are differences though, and these make an interesting film.

LINCOLN, THE PIONEER (EASTMAN)

921 15 minutes—silent 1

Lincoln's Youth.

LINCOLN, THE STATESMAN (EASTMAN)

921 15 minutes—silent 1

Includes the Emancipation proclamation, the Gettysburg address, Lee's surrender and Lincoln's death.

LINE FROM YUCATAN (OIAA)

917.26 9 minutes—sound—B&W&C 1

Shows how planters on Mexico's famed peninsula are providing sisal hemp to replace that originally secured from sources in the Pacific.

LIVE AT HOME (USDA)

630 10 minutes—sound—color 1

Explains the special wartime advantages of a live-at-home program to help farmers raise as much of their own food as possible. Good nutrition information included.

LIVESTOCK AND MANKIND (USDA)

619 11 minutes—sound 1

Tells how veterinary science has helped to increase the usefulness of domestic animals to mankind.

Unit Value

LIVING AND LEARNING IN A RURAL SCHOOL (TC)

379.173 25 minutes—sound 3

Presents educational theory translated into practice. Pictures the way in which one school is attempting to give its children a rich educational experience, and this provides a concrete basis for discussion of the relative values of various educational theories and methods. Especially good for teacher-training classes.

LOST CHICK (TFC) (See regulations—last page)

F 11 minutes—sound—color 5

An adventure story that characterizes two squirrels, their brothers and sisters, a mother hen and her chickens.

LOST WORLD (EASTMAN)

560 15 minutes—silent 1

An interesting and informative picture story made from the Conan Doyle book by the same name. The film is an exhibition in motion of extinct prehistoric animals recreated in full-scale, lifelike models.

LUMBERING IN THE PACIFIC NORTHWEST (EASTMAN)

674 15 minutes—silent 1

Laying a railroad, dragging logs to it by steel cables, sawing the logs into lumber, drying in tunnel kilns, planing and subsequent sorting and shipping are shown.

MACBETH (EASTIN)

822.3 16 minutes—sound 3

Presents the Murder and Sleepwalking scenes from the famous play.

MACHINE MAKER (EBF)

621.9 10 minutes—sound 3

The setting and personnel of a machine tool factory. Demonstrates the operation and manufacture of lathes, millers, planers, drill presses, boring mills, grinders, and other machines.

MADE IN USA (Richmond News Reader)

920 10 minutes—sound 1

In a typical American store a group of people discuss economic problems. The discussion reaches the point of argument on the Interdependence of the different countries. This Interdependence is clearly illustrated when one member of the group drives away in his car and pieces fall off and he is left with only the steering wheel—which, of course, is no good without the other parts.

MAGIC BULLETS (OWI)

616.9 30 minutes—sound 2

The dramatic story of Dr. Paul Ehrlich's struggle to conquer the microbe causing syphilis and of how he finally found a solution which effectively combats the microorganism.

MAGNETIC EFFECTS OF ELECTRICITY (EASTMAN)

538 15 minutes—silent 1

Magnetism and magnetic induction with their applications to the electromagnet, the electric bell, the ammeter, the voltmeter, and the motor—the theory of permanent magnetism—an explanation of terrestrial magnetism.

Unit Value

MAKING PAVING BRICK (USDA)

666.7 15 minutes—sound 2

The progress of clay is traced from the time it is taken from the deposit until it is made into the finished product.

MANUAL TRAINING, ELEMENTARY (BRANDON)

684 10 minutes—sound 3

We see a youngster start with the plans and work to a polished finish a gift box. He is taught to use the saw, plane, a veining tool, cleats, glue and nails. Produced under the direction of Edward T. Hall of the Universal School of Handicraft, New York.

MARCH OF THE MOVIES (INT. EDU. F)

791.4 REEL 1 30 minutes—sound 3

Study of the successive steps in the development of the motion picture from earliest conceptions to the present time. Entertainment for the whole family,—also provides an opportunity for a comparative study.

MARCH OF THE MOVIES (INT. EDU. F)

791.4 REEL 2 30 minutes—sound 3

The discovery that enabled Leonardo Da Vinci to invent his Camera Obscura, pictures of Kircher's magic lantern, Daguerre's contribution to the development of the movies, and Thomas Edison's discovery of sound motion pictures, are all reproduced in this film. Scenes from the first fourteen silent motion pictures ever produced are included, as well as portions of later films such as: The Big Parade, The Hunchback of Notre Dame; Pollyanna and the Birth of a Nation.

MARIONETTES—CONSTRUCTION AND MANIPULATION (BRANDON)

791.5 10 minutes—sound 3

Here we see Bobo, a clown marionette, made from a piece of sugar pine. How cotter pins are used as joints; how the feet are weighted with lead; how the head is made from clay and attached to the body. How the eyes and strings are attached. Bobo has made-to-measure clothes in which we finally see him in action.

MARITIME PROVINCES OF CANADA (EBF)

917.1 10 minutes—sound 3

Located in the extreme southeastern part, the Maritime Provinces include three small provinces: the peninsula of Nova Scotia with Cape Breton Island on the Atlantic; Prince Edward Island in the Gulf of St. Lawrence; and New Brunswick.

MARY VISITS POLAND (IFF)

914.38 10 minutes—sound 3

Mary, an American elementary school girl, describes to her class her experiences in visiting her grandparents in Poland. In her own language she takes her class into a Polish school, into Polish homes, and into fields where agricultural activities are seen. She shows them the beautiful costumes and colorful dances of the Polish people and gives her class an insight into the cities of Lowicz, Krakow, Zakopane, and Gdynia.

Unit Value

MASTER WILL SHAKESPEARE (TFC) (See regulations—last page)

822.3 10 minutes—sound 3

A brief story of the life of Shakespeare with special emphasis on his play "Romeo and Juliet."

MEATS WITH APPROVAL (USDA)

664.9 17 minutes—sound 2

Opening with a scene of meat poisoning 40 years ago, the film shows how and why the meat we eat today is pure—protected by the Meat Inspection Service of the Department of Agriculture and identified by "the little purple stamp of purity." Covers every step from inspection of live animals in the pens through the slaughter house to the final processing.

MECHANISMS OF BREATHING (EBF)

612.2 10 minutes—sound 3

The breathing mechanism in operation. Technical animation of gaseous exchange in lungs and body tissue cells, including pathological conditions. Demonstration of artificial respiration. Nervous control of breathing and factors affecting rate and depth of breathing.

MERRY CHRISTMAS (C)

394 10 minutes—sound 3

A typical Christmas as celebrated by most American families. The crowded streets and stores, excited children, Santa Claus, the Church party, selecting the turkey, trimming the tree, and finally Christmas morning, with presents for everyone.

METAL CRAFT (EBF)

739 11 minutes—sound 3

Presents the steps taken by a master craftsman in making a pewter bowl by spinning and shaping a blank for later soldering to a cast base. The craftsman then creates a bronze bowl by raising, smoothing, annealing, planishing, and burnishing a blank disc.

MEXICAN CHILDREN (EBF)

917.2 10 minutes—sound 3

Reveals the home, school, and play life of two Mexican children, Aurora and Mateo.

MEXICO (OIAA)

917.2 15 minutes—sound 2

Glimpses of Mexico through short scenes taken in various parts of the country depicting the life and customs of the people and some of the important buildings in Mexico City.

MEXICO BUILDS A DEMOCRACY (OIAA)

917.2 20 minutes—sound—color 3

Shows how Mexico is attempting to build its democracy by educating its people. How a young instructor in one village carried out his program of education for democracy.

MEXICO CITY (OIAA)

917.2 11 minutes—sound—color 2

The cathedrals, modern hotels, and parks of Mexico are described by Orson Welles. There is a dance to the God of Fire and a fiesta in the capital.

Unit Value

MEXICAN MOODS (OIAA)

917.2 11 minutes—sound—color 2

Shows the varied aspects of a modern day in Mexico. Included are shots of personalities ranging from political figures to famed entertainers. Also shows an Aztec festival at Taxco.

MICROSCOPIC MYSTERIES (TFC) (See regulations—last page)

595.7 10 minutes—sound 3

Natural life habits and activities of certain insects—family of ants—a spider—ant lions—grasshoppers—shell-backed bug—wasp—scorpion—cricket—a tarantula attacks a cricket—mating scenes between black crickets—spider attacks a centipede.

MIDDLE STATES (EBF)

917.7 10 minutes—sound 3

Presents in sequential form an overview of man's use of resources in the states of Minnesota, Iowa, Missouri, Illinois, Wisconsin, Michigan, Indiana and Ohio.

MILKY WAY OUT (USDA)

637 20 minutes—sound 2

A record of achievement in community development of a supplemental dairy industry. One-crop farmers bred up good cows from native stock, transformed worn-out soils into permanent pastures and adopted soil-building programs, thereby solving the one-crop problem and attaining balanced farming and a higher standard of living.

MISSION ACCOMPLISHED (OWI)

940.544 10 minutes—sound 1

The story of the first all-American raid on Nazi Europe with Flying Fortresses. Time: August 1942; Place: somewhere in England; Target: the railroad yards at Rouen.

MODERN COAL MINING (GOODYEAR)

622.33 20 minutes—silent 1

Modern methods of digging coal and getting it out of the mines.

MODERN LITHOGRAPHER (EBF)

763 11 minutes—sound 3

Describes in detail the techniques of lithographic artists and the processes of duplicating black and white and color originals by means of direct and off-set lithography. The roles of the commercial photographer and the modern printing press in the mass production of attractive art prints, including advertising materials, are portrayed.

MOHAWK VALLEY (EASTMAN)

917.47 15 minutes—silent 1

From Indian explorer to canal builder and railroad engineer, the Mohawk valley has been used as a route to the land beyond the Appalachians. A trip showing the many evidences of industrial activity and agricultural wealth, making stops at principal cities along the way.

MOLD AND YEAST (EASTMAN)

589.2 8 minutes—silent 1

Development of mold seen through microscope showing plus and

Unit Value

minus strains, zygospore, movement of protoplasm. Photomicrographs of yeast plants showing formation of buds. Close-ups of moldy orange, a moldy shoe, mildew on cloth, moldy bread. Magnification of bread mold showing hyphae with spore cases.

MOLECULAR THEORY OF MATTER (EBF)

541.2 10 minutes—sound 3

Evidence of molecular activity in gases, liquids, and solids is presented in support of the molecular theory of matter. Animated drawings explain such phenomena as the diffusion of gases, the evaporation of liquids, and the transformation of liquids into solids, in terms of the theory. Among the features of the film are the machine gun illustration of force exerted by molecules in motion, and the microscopic view of the Brownian movement, direct evidence of molecular motion.

MONTEVIDEO FAMILY (OIAA)

918.9 19 minutes—sound 2

An interesting study of the daily life of one typical middleclass family of Uruguay in its capital city. The housework, schoolwork, the cultural and entertainment diversions, the work of the father in the office, all contribute to an understanding of our neighbors.

MOON, THE (EBF)

523.3 10 minutes—sound 3

The technique of animation and other cinematic devices present the story of the moon. The difficult concept of tides explained, as are the phases of the moon. Other lunar phenomena explained by special cinematography and animation are: the moon's orbit; the lunar month; sunrise and sunset on the moon; occultation of stars; the moon's path in space; lunar eclipses; and solar eclipses.

MORE MILK (USDA)

637 10 minutes—sound 1

This film presents the need for increased milk production. For this increase the country looks—not to the large commercial dairy herds which are already producing to capacity, but to small farm herds of a dozen or so cows. The treatment that cows can be given to increase production.

MORMON CRICKET (USDA)

632.7 22 minutes—sound 2

Brief history of how the cricket got its name. Life history. The Mormon Cricket as a destructive force. Most common enemy, the Wasp.

MOSQUITOES (USDA)

632.77 30 minutes—silent 1

The life history of the mosquito; its baleful influence on human and animal life; and various methods of control.

MOSQUITO—PUBLIC ENEMY (C)

632.77 11 minutes—sound 3

Shows several varieties of the mosquito, describes it as a pest and public enemy, and pictures its life history and several methods of control.

Unit Value

MOTHS (EBF)

595.78 10 minutes—sound 3

A large silk moth and the white-masked tussock moth are followed in detail through their life histories. Attention is called to their economic importance.

MOUNTAIN BUILDING (EBF)

551.4 10 minutes—sound 3

By employing animated drawings and models "Mountain Building" re-enacts significant events in geological history. The subsidence of the land about the mouth of the Hudson River, the story of the Appalachian Mountains, and the spectacular Lewis Overthrust in the Rocky Mountains, are vividly portrayed. The film opens with a photographic survey of evidence which constitute the basis of these interpretations, and closes with a consideration of the significance of these phenomena to mining and structural engineering.

MR. AND MRS. AMERICA (OWI)

532.6 15 minutes—sound 2

This film tells why you and I—Mr. and Mrs. America—should not only buy bonds but hold them until maturity. President Roosevelt introduces the subject to remind us that war is still the chief job of all and we at home can help most by buying and holding war bonds. Combat shots of men in action and of men wounded. If they give a life, surely we can buy bonds to help fight the war and win the peace.

MUDDY WATERS (USDA)

631.4 12 minutes—sound 1

A story of land use and abuse in the Southwest. Shows conditions when the white man came and how his grazing and farming depleted soil-binding vegetation, resulting in destruction of the soil by floods and erosion. Suggests remedial measures.

MUSCLES (EASTMAN)

611 15 minutes—silent 1

The structure and the use of muscles are strikingly presented by means of actual photography and animations. The film may be used, not only to teach the facts involved, but also to provide a fresh approach to the consideration of habits of exercise and posture. Structure and properties of muscles. Muscles in action.

MUSIC OF THE NATIONS (GUT)

784 10 minutes—sound 3

Songs of the steppes; also "La Paloma" and "Sleepy Rio Grande."

MY JAPAN (OWI)

940.535 20 minutes—sound 2

By the use of captured Japanese footage, a Japanese narrator shows us what confronted us as we drew nearer Japan.

NATIONAL POULTRY IMPROVEMENT PLAN (USDA)

636.5 30 minutes—sound 2

Recommended methods in breeding poultry for high egg production and good meat quality and in the control of pullorum diseases.

Unit Value

NATURE'S CHEMISTRY (GUT)

500 10 minutes—sound 3

Divided into three parts: (1) a microscopic study of a drop of water showing glass models of microscopic animals; (2) shows how sunlight converts green leaves into food and the growth of plants; (3) presents some aspects of soilless agriculture, sand culture and the application of these methods to cattle feeding.

NAVAJO CHILDREN (EBF)

970.1 10 minutes—sound 3

Here are revealed, in superb photography, set in Arizona and New Mexico, the experiences of a Navajo boy and girl in moving with their family, household effects, pets, horses, sheep and goats from their winter quarters to their summer home. Following a day's journey by wagon, they camp for the night with other Navajos and after the evening meal sing native songs. In the morning, the Navajo boys hold marksmanship contest with bows and arrows. The next day brings them to their destination. Reparing their home, planting crops, caring for the sheep and goats, and rug weaving are among the activities shown.

NAVAJO INDIANS (EBF)

970.1 10 minutes—sound 3

Glimpses of Navajo Indian life which few white people know about. The girls tend the sheep and goats and ask the boys to dance. The boys race ponies. We see homework of weaving and gardening. Silversmithing, home-building, and cooking are also presented. A native wedding with Navajo conversation and songs.

NEGRO COLLEGES IN WARTIME (OWI)

378 16 minutes—sound 2

The wartime activities of four colleges are shown—Tuskegee Institute in Alabama, Prairie View College in Texas, Howard University in Washington and Hampton Institute in Virginia.

NEGRO FARMER, THE (USDA)

326 30 minutes—sound 2

Outlines are given of the work of the Federal and State Extension Services among southern Negroes. It shows what is being done to further the cause of better farming and better living. Tuskegee Institute Choir provides background music.

NEGRO SOLDIER, THE (OWI)

326 45 minutes—sound 3

A Negro preacher reviews the part played by his race in the development of the United States and in the current war. Excellent picture and musical background.

NERVOUS SYSTEM (EBF)

613.8 10 minutes—sound 3

Structure of the nervous system, particularly in man; its pathways and connections. The nature of the nerve impulse; conditions for setting up impulses; their passage from cell to cell; their

Unit Value

discharge and resultant activity. Reflexes. Sensory integration, and activity of the cerebrum.

NEW ENGLAND FISHERMEN (EBF)

639 11 minutes—sound 3

Domestic life and work of New England fishermen. Fishing on Grand Banks is main scene. Work and living conditions aboard a steam trawler which drags a fish net along the ocean floor.

NEW SOUTH (EASTMAN)

917.5 15 minutes—silent 1

Traces the rapid progress of the New South: its agricultural products—cotton, tobacco, rice, early vegetables, fruits, nuts; raw materials—marble, aluminum ore (bauxite), coal, limestone, iron; and water power for the paper, cotton-goods and other industries. Birmingham, Mobile, New Orleans and Miami are shown.

NEWS PARADE FOR 1937-38-39-40-41-43 (C)

909 10 minutes—sound—each film 2

Each film gives the highlights of news for that year. Please order by year.

NEXT TIME WE SEE PARIS (FF)

914.436 10 minutes—sound 1

Musical one-reeler based on two French songs, "Si Tu Vas a Paris" (Next Time We See Paris) and "Surles Quais du Vieux Paris") (On the Quays of Old Paris). Sung by Mme. Claude Alphand.

NICKEL HIGH-LIGHTS (USBM)

669.7 31 minutes—sound 2

Activities and operations in Canada and the United States which are essential to the production of nickel and its alloys.

NORMANDY INVASION (OWI)

940.542 19 minutes—sound 2

An unforgettable record of the tremendous preparations and effort made by the invasion forces on D-Day. Gripping scenes of U. S. troops wading through a hail of machine gun fire from boats which have worked their way through mine fields and under-water obstacles highlight the picture.

NORTH CAROLINA VARIETY VACATIONLAND (CON.&DEV.)

917.56 45 minutes—sound—color. Free with a paid order—otherwise 1

Covers the recreational, scenic and historical features of the State, from the coast, where the first English colony was founded on Roanoke Island, to the highest mountains east of the Mississippi. Opens with scenes from the symphonic drama, "The Lost Colony" and takes us from sand dunes and ancient wrecks, inland through tulip fields and peach orchards, to the universities at Chapel Hill and Duke. Proceeding westward across the Piedmont, the movie reaches its climax in the resort area and the Great Smokies. Settling of Roanoke; agricultural produce represented by strawberries, peaches, melons, tobacco and cotton; Indian crafts shown on the Cherokee Reservation—all make this a delightful film.

Unit Value

NORTHEASTERN STATES, THE (EBF)

917.4 10 minutes—sound 3

Provides an interpretation of historical progress in the development of resources in the areas of West Virginia, Maryland, Delaware, District of Columbia, New Jersey, Pennsylvania, New York, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire and Maine. Features of the land, people, natural resources, textile, clothing and heavy industries are shown in their interrelated aspects.

NORTHWESTERN STATES, THE (EBF)

917.8 10 minutes—sound 3

Depicts characteristics of the states of Montana, North Dakota, South Dakota, Wyoming, Idaho, Utah, Colorado, Nebraska, and Kansas. Topography, rainfall, drainage, fauna and flora, people, metropolitan centers, scenic and recreational features, transportation and commercial activities, natural resources, and agricultural situations are shown.

OBJECTIVE: SECURITY (US MARINE CORPS)

940.539 18 minutes—sound 2

This film shows how 840 officers and men trained in civil affairs set about solving the problems of fear, hunger, and sickness found among the huge civilian population of Okinawa following its invasion by American forces in World War II. It illustrates how military and civilian affairs must be coordinated, how racial strains often mix to produce a problem population, and how under good management and with modern machinery the dormant resources of the land can be used to raise the standard of living.

OCALA (USDA)

917.59 11 minutes—sound 1

A scenic tour through Ocala Park in Florida.

OCEAN LINERS (EASTMAN)

387 10 minutes—silent 1

Steps involved in building an ocean liner. Loading of cargo and supplies. Fueling. Life boat inspection and medical inspection of the crew. Quarters of the crew members. By animation and actual photography the film shows how vessels are controlled from the bridge. The engine room and passenger life on a large ship.

OHIO TRAVELOGUES (O. DEPT. EDU.)

917.71 10 minutes—sound 1

PART 12. A steamboat trip on the Ohio River from Cincinnati to Pittsburgh and return. The dining room. deck sports, loading the boat, pilot house and other features of the boat itself are shown. Beautiful scenery.

PART 15. Put-In-Bay, Perry Monument, Painting, Lake Scenes, Marblehead, Kelley's Island, Inscription Rock, Table Rock, Glacial Groves, Commercial Fishing, Cedar Point, Lakeside, Blue Hole, Edison Home, McPherson Monument, Meek Monument, Crawford Monument, Old Stream Scenes of Old Mill. 1

PART 17. Mohican State Park, Agriculture, Experiment Station, Williard Monument, Spirit of '76, Amherst Quarries, Bacon Monument at Tallmadge, World's Largest Building, Portage Lake Scenes. 1

Unit Value

OLD SOUTH (EASTMAN)
917.5 15 minutes—silent 2
Picking cotton, cotton mills, mountains, lumbering, seeding cotton by hand, Whitney experimenting on cotton engine (gin), the hand power gin, shipping cotton on river boats, the slave trade, southern plantation homes and social life, hunting, Uncle Tom's Cabin, the Civil War and its effects.

OLD TIME BALLADS (GUT)
784 10 minutes—sound 2
"Hills of Home," "Silence of the Night," "Home Sweet Home," "Silver Threads Among the Gold," "Sweet Alice Ben Bolt," and "Sunrise and You," are some of the old songs we hear. A brief history of each proceeds its rendition.

ON THE ROAD TO TOMORROW (USDA)
630.6 11 minutes—sound 1
Shows the youth of many lands and different races engaged in youth activities with widely divergent goals, all doing their best according to their lights; explains our own youth movement in the 4-H Clubs; representing the great basic industry of agriculture, spread of the movement in many foreign lands and the results and significance of work and training of 4-H Club members.

OPERATION OF A FOREST NURSERY (USDA)
634.9 10 minutes—sound 1
This U. S. Department of Agriculture film shows reforestation measures.

ORANGE GROWER (EBF)
634.3 10 minutes—sound 2
Describes the location of citrus growing activities, and tells the story of a typical orange grower and his family in their efforts to raise and harvest their crop. Budding, pruning, planting, fertilizing, irrigating, controlling insects and temperature are all shown.

OREGON COUNTRY (EASTMAN)
917.95 15 minutes—silent 1
Scenes of the covered wagon days are contrasted with those of the country as it is today. The Lewis and Clark route and the Oregon Trail are traced to Fort Hall and Fort Missoula respectively. Scenes along the way include the Columbia highway, salmon fishing, Mt. Hood, Portland, and the salmon industry at Astoria.

OUR BILL OF RIGHTS (ACADEMIC)
342.73 20 minutes—sound 6
Re-creates the forming and adopting of the first 10 amendments, or the Bill of Rights, to the Constitution. Shows the influence of James Madison at this time. Madison, George Washington, Benjamin Franklin, John Randolph, Alexander Hamilton, and John Jay made this historic time very real.

OUR CHILDREN (USN)
4 minutes—sound 1
Shows contrasting scenes of children of war and children of peace, both here and in Europe, and takes its title from its argument that after World War II we must help European children so that our own children may be spared another war.

Unit Value

OUR EARTH (EBF)

551 10 minutes—sound 3

A survey of physical aspects of our earth in their relations to concentrations and activities of peoples. Beginning with oceans and ocean currents, their effects on climate, and consequently on peoples, the film continues to delineate similar effects of various types of coast lines and harbors, rivers and lakes, valleys, plateaus, and mountains.

OUR ENEMY, THE JAPANESE (OWI)

915.2 20 minutes—sound 2

Gives an insight into the resources, religion, military training, schooling and lives of the people of Japan. It shows how for years the entire national existence has been regimented toward one purpose, the conquest of the world. Gives a new respect for this enemy and instills a determination that he must be totally defeated.

OUR NATIONAL GOVERNMENT (KB)

353 11 minutes—sound 3

A graphic analysis of our form of National Government showing and explaining the separate functions of each branch. Actual scenes in Washington, our National Capitol, giving a clear mental picture of the magnitude of the business of government.

OUR NEIGHBORS DOWN THE ROAD (OIAA)

918 43 minutes—sound—color 3

A trip by motor along the route of the Pan-American Highway from Caracas to Santiago, Buenos Aires, and Rio de Janeiro, including a side trip to the Strait of Magellan.

OUT OF THE FRYING PAN INTO THE FIRING LINE (OWI)

665 3 minutes—sound—color 1

Disney's famous characters—Pluto and Minnie—show why and how to save fats. A charming bit of whimsy that will appeal to all.

OUT OF THE HEART (FILMEDIA)

636.7 10 minutes—sound—color 2

A new motion picture in color, telling the heart-warming story of a boy and his dog. Kindness, loyalty, patience, teamwork and other desirable character traits are often strengthened in humans by association with animals, and this is the observation that you will make from this film. Rags, canine hero of the film, turns the tables on Billy, the human half of the featured cast, by teaching his master many important secrets of life—while Billy, all the while, thinks he is teaching Rags. This film will appeal to youngsters and grown-ups alike for the lure of animals seems to be irresistible.

OVERLAND TO CALIFORNIA (EASTMAN)

978 15 minutes—silent 2

Evolution of westward highways, from pioneer days to present-day air routes. The Mormon Temple and Tabernacle in Salt Lake City are shown, as are Great Salt Lake and salt operations carried out along its shores. The trail continues westward from Sparks, Nevada, passing through the Sierra Nevadas, the Sacramento Valley, and the city of Sacramento to San Francisco and the famous Golden Gate.

Unit Value

OVULATION OF MAMMALIAN EGG (EASTMAN)

612.6 15 minutes—silent 1

Fertilization in certain marine invertebrates showing the entrance of the sperm into unfertilized eggs. The formation of the fertilization membrane; and first and second cleavage divisions of a fertilized egg.

OXIDATION AND REDUCTION (EBF)

542 10 minutes—sound 3

The simultaneous process of oxidation and reduction is presented first by burning phosphorus and rusting iron under experimental conditions. Mercury rust is then decomposed to discover the component of air responsible for oxidation. Other examples of oxidation and oxidizing agents such as: the blast furnace, magnesium burning in dry ice, and thermite welding, are shown.

OYSTERS (EASTMAN)

594 15 minutes—silent 1

Life history of the Atlantic oysters. Methods used in oyster farming, fishing, and canning. Also shows how pearls, formed in the Oriental pearl-oyster, are graded, drilled, and assembled into necklaces.

PACIFIC CANADA (EBF)

917.1 10 minutes—sound 3

Canada's great Pacific Province is British Columbia, including Vancouver Island and many smaller islands. The Yukon Territory adjoins it on the North, extending to the Arctic Ocean. The Coast Range and the Rocky Mountains that extend northwestward to Alaska make this region even more mountainous and rugged than western U. S. to the south.

PAN AMERICAN BAZAAR (OIAA)

918 9 minutes—sound—color 1

The arts and crafts of the southern republics elaborately displayed in an exhibition at the famous Macy Department Store in New York City.

PANAMA CANAL ZONE (CUNARD)

918.6 15 minutes—silent 1

The story of a great engineering achievement, showing the method by which the canal is operated.

PARACHUTES FOR SAFETY (SWITLIK)

629.13 20 minutes—sound 2

Types of parachute packs, how chutes are put on and handled in planes, how chutes are made, and a dramatized emergency drop from a transport plane.

PARADE OF THE COMIC BALLOON (GOODYEAR)

791.6 15 minutes—silent 1

The Thanksgiving parade of grotesque and comic balloons in New York City.

PARADE OF THE PAST (FUN FILMS)

917.86 10 minutes—sound 3

In this authentic documentary covering the events and personalities in American history from 1893 to 1901 we see Fatima do her Houchi Kouchi dance on the Chicago Midway; Indian Scalpers on the old Kinetoscope; Bryan and his "You Shall Not Crucify

Unit Value

Man Upon a Cross of Gold." Who said "Isolation is no longer possible" way back in 1897? We see T. R. come marching home with the Rough Riders of San Juan Hill. They are all here. The climax is the assassination of President McKinley, and the fateful succession of Theodore Roosevelt to the Presidency.

PARAGUAY (OIAA)

918 17 minutes—sound 2

The story of the people of Paraguay, a hardy and independent people who have survived the devastating history of warfare and disadvantage. The country's interesting quebracho and mate industries are shown along with its distinctive and vigorous Indian culture.

PARATROOPS (OWI)

629.13 9 minutes—sound 1

Training of paratroops before being engaged in combat. Scenes show them jumping, falling from a tower and from a dummy plane, packing the all-important parachute, and jumping promptly from the plane. How they are taught to guide the chute by working the shroud cords, and how to land smoothly so they can come up fighting. Skiing for those who will fight in subzero terrain.

PASSENGER TRAIN (EBF)

385 11 minutes—sound 3

Interprets a journey on a modern, streamline, Diesel-electric powered passenger train from a large city through a picturesque countryside. The duties of the ticket seller, gateman, baggageman, conductor, engineer, motor attendant, mail clerk, dining car cook, waiter, and pullman porter are depicted and commented upon. Right-of-way problems including tunnels and bridges are portrayed. Comfort, safety and efficiency are given attention.

PATTERNS OF AMERICAN RURAL ART (USDA)

709.73 11 minutes—sound—color 1

Portrays the varied types of handicraft and art work produced throughout rural America. The weaving and other crafts of pioneer days still to be found in some of our mountain areas are featured.

PATZCUARO (OIAA)

917.2 11 minutes—sound—color 2

Life of the Tarascan Indian fishermen on the shores of Lake Patzcuaro, west of Mexico City. The famous Dance of the Old Men is performed on one of the fiesta days in the market place.

PEACE BUILDERS, THE (BRANDON)

940.532 10 minutes—sound 3

The first basic motion picture of the memorable meetings and actions of the Allied leaders, from the Atlantic Charter meeting to the United Nations Conference at San Francisco. It summarizes the proceedings and proposals worked out by Allied leaders at Ottawa, Cairo, Teheran, Moscow, Hot Springs, Bretton Woods, Dumbarton Oaks, and Yalta. It reflects the confidence and power of the Democratic peoples of the world to solve their problems through cooperation.

PEACE COMES TO AMERICA (US TREASURY WFD)

940.537 10 minutes—sound 1

Commencing with scenes of Washington at the announcement of peace, this film surveys the many items of government expense

Unit Value

involved in bringing home our World War II soldiers, in providing them with mustering-out pay and with employment service, in underwriting the provisions of the GI Bill of Rights, and, most of all, in caring for those hospitalized as a result of military service.

PENMANSHIP IMPROVER (T.A.E.)

372.5 10 minutes 3

By the use of this film students learn to make skillfully three simple strokes which constitute more than 90% of all the longhand letters. Teachers who have used the system on experimental groups report complete legibility and substantial appearance improvement in less than ten hours of practice.

PEOPLE OF THE CONGO (EBF)

916.7 11 minutes—sound 3

A study of the Mangbetu peoples living in tropical forest region of Africa. Emphasis on cleanliness in well built, immaculate homes. Careful preparation of cooked meal, of fish, bananas, manioc root, sugar cane; using clay cooking utensils made by hand. Head binding, native arts, and crafts, sketching, design, wood carving, and construction of native musical instruments.

PEOPLE OF HAWAII (EBF)

919.69 11 minutes—sound 3

Describes the setting of the Hawaiian Islands and provides an insight into the native economy. The dependence of the natives upon the sea and their immediate land environment for food; home and school life; sports and craftsmanship; and the preparation of a native feast make up the major sequences. Glimpses of mass production and harvesting of sugar cane and pineapple are also shown.

PEOPLE OF MEXICO (EBF)

917.2 11 minutes—sound 3

Presents a living account of the origin and development of the Mexican people, with emphasis on their dependence upon the land. It portrays the setting of a feast day in a small village, including ceremonies, dances, songs, and music.

PEOPLE OF WESTERN CHINA (EBF)

915.1 11 minutes—sound 3

Shows the influence of habits and customs of past centuries on present-day China. Methods of agriculture, irrigation, and the culture and use of bamboo are shown. Representative arts and crafts, methods of transportation, and engineering skills are depicted in their traditional settings.

PERCUSSION GROUP, THE (EBF)

789 11 minutes—sound 3

Variety is the keynote of this picture showing as it does, not merely the traditional snare, base and kettle drums, but also the tambourine, cymbals, triangle, bells, and zylophone. Opening measures of music are played on the celesta—an instrument which pupils rarely have opportunity to examine. The camera brings each instrument close enough for detailed examination.

PERISHABLE—RUSH (OWI)

940.547 18 minutes—sound 2

Aided by excellent photography, the picture tells a story of flying ambulance travel in which the vast distances of the Pacific have been conquered in the fight against battle wound infection. The

Unit Value

wounded Doughboy is dragged from the field by the medical corpsmen who treat him even as the enemy rakes the area with fire. He is carried from the jungle fighting line in a heliocopter. A giant hospital plane pilots him through a chain of hospitals until he is delivered directly into the arms of his mother.

PERU (EBF)

918.5 11 minutes—sound 3

Animated maps help to provide a historical and geographic perspective of Peru. Ruins of pre-Inca and Inca civilizations are shown. Contemporary family life in an Indian Communal village makes up the major sequence. Modern Peruvian industries—copper mining, oil refining, cotton and sugar cane production—are treated, along with urban life in the city of Lima.

PERU (OIAA)

918.5 20 minutes—sound 2

A study of the modern social and economic life of Peru and of the attempt to meet certain current problems of health, poverty, relations between races, and an improvement of national economic conditions.

PERU (EASTMAN)

918.5 15 minutes—silent 1

Following a treatment of Lima, the modern capital, attention is focused on the ruins of pre-conquest civilizations. Present-day descendants of once-proud Indian peoples are then seen in their comparatively untouched village life, with its primitive agricultural methods, its handicrafts, and pastoral simplicity. Activities of a typical family are shown.

PHOTOGRAPHY FIGHTS (OWI)

770 13 minutes—sound 2

This picture shows how photography is helping to win the war. It shows how under enemy action photographic crews work precious minutes getting and scanning pictures to search for signs of enemy emplacements and evidence of enemy movements. It tells what happens when well trained, discerning photographic interpreters can read from pictures shot by the crew.

PICTURESQUE POLAND (EFLA)

914.38 10 minutes—sound—color 2

Opens with Poland at war and then turns to pre-conquest Poland as found in its peaceful countryside, in views of people, streets, and buildings in Warsaw and Krakow. Scenes are a monastery and its gardens, the Carpathian mountains, village dancing, the making of cheese and sheep grazing.

PIG PROJECTS MAKE PROFITS (DUROC)

636.4 14 minutes—sound—color 1

A story of pig club activities and the activities of young men in this phase of their life in agriculture.

PINCERS ON JAPAN (OWI)

940.537 20 minutes—sound 2

With social emphasis on the construction and completion of the Alaskan Highway shows how the western and northern fronts of

Unit Value

the United States, Canada, and Alaska have been fortified against attacks from Japan. Scenes of the bombing of Dutch Harbor.

PINEWAYS TO PROFITS (USDA)

634.9 16 minutes—sound 1

The old custom of burning the woods presents the most serious obstacle to forest management in the southern pine region. This film exposes the fallacy of this custom and shows benefits of good management of southern pine forests.

PIONEERS OF THE PLAINS (EBF)

978 10 minutes—sound 3

Traces the experiences of a pioneer family in journeying from Illinois to a homestead on the Midwestern plains. Sequences include relationship with other settlers and cattlemen; building and decorating a sod house; plowing; collecting fuel; and contacts with a circuit-riding minister. Conversations and music of the time lend reality to the picture.

PLAIN INDEXING AND CUTTING A SPUR GEAR (C)

621.83 22 minutes—sound 3

The set-up of a milling machine, the use of a dividing head, and the cutting of an 8-pitch spur gear with 36 teeth. Animation study of the principles of the dividing head and how it is used to secure the desired number of cuts.

PLANT GROWTH (EBF)

581 10 minutes—sound 3

A remarkable presentation of the growth of the pea plant. It shows by time-lapse photography the entire story from the time the seed first sends out its root and stalk until the ripened seeds are scattered. The processes of pollination and fertilization are vividly portrayed by means of photography and animation.

PLANT TRAPS (EBF)

581.5 10 minutes—sound 3

Carnivorous plants have the unusual characteristics of entrapping and digesting insects and other small animals. The film shows how the pitcher plant lures insects to its trap, where they drown. The sun-dew, another carnivorous plant, is shown throughout its life cycle. The enfolding of insects by its leaf tentacles is presented very impressively by means of time-lapse photography. Many unusual and interesting scenes.

PLANTER OF COLONIAL VIRGINIA (EBF)

975.5 11 minutes—sound 3

Recaptures representative phases of life in Colonial Virginia. Shows Williamsburg as the political and social center of the colony; the roles of the slaves, indentured servant, and artisan; methods of manufacture and means of transportation; architecture; social customs; and music of the period.

PLANTING AND CARE OF TREES (EASTMAN)

632.7 15 minutes—silent 1

Insect pests. Opens with instructor using a motion picture to demonstrate to a class the ravages of insect pests on trees. Life cycle of tent caterpillar, and tussock moth are shown. Scenes showing pupils on field trip hunting insect pests. Planting a tree, selecting the tree, digging the hole, trimming the tree, planting,

Unit Value

appearance of tree in the following spring, and pupils holding a reunion under the tree thirty-seven years later.

PLASTIC ART (EBF)

739 11 minutes—sound 3

Step by step we see a well-known sculptor conceive and execute a bronze statuary group. After completing a sketch, the sculptor constructs lead wire skeletons on which he builds up rough figures while observing living models. Bit by bit, the figures take form under the artist's deft touches until the model group is completed. Measurements are then taken, from which a large sized group is reproduced to scale. From this the bronze replica will be cast.

PLAY IN THE SNOW (EBF)

796 10 minutes—sound 3

Shows boys and girls playing such snow games as fox and geese and building snow men. Emphasizes freedom and healthfulness of group playing in the snow.

PNEUMONIA (EBF)

616.2 11 minutes—sound 3

Begins with a general discussion of pneumonia. Graphs show fatalities resulting from the disease and compare it to others; the physician's methods of treatment and the ways in which the disease is transmitted are demonstrated, and the classes of people who are particularly susceptible are mentioned.

POLAND FOREVER (OWI)

914.38 18 minutes—sound 2

A pictorial document of the fight of democracy against invasion by the youth of Poland. The story of a nation both young and old —old in tradition of courtesy to man and reverence for God, and young in heroic dedication to the building of a new state. Traces the history of Poland from the fifteenth century to the present and oulines events leading up to the invasion.

POLICEMAN, THE (EBF)

352.2 10 minutes—sound 3

Describes the function of police officers in general and follows a typical city patrolman through one of his regular shifts of duty. In due course, the use of motorcycles and patrol cars with two-way radio communication is demonstrated and explained. Lessons in pedestrian and vehicular traffic safety are developed, along with the role of the policeman in rescue work and the apprehension of a speeding driver.

POND INSECTS (EBF)

591.92 11 minutes—sound 3

Presents the diving water beetle, the mayfly, and the dragon-fly, as representative of this group of insects. Their life cycles are portrayed, as well as their food habits and struggle for existence. We see a diving beetle lay its egg; a water beetle larva attacking a large tadpole; the mayfly molting after acquiring wings; the mayfly hiding from its enemies; and the remarkable mask of the dragon-fly nymph.

POP RINGS THE BELL (NAT.S.S.I.)

379 23 minutes—sound 4

This dramatic, convincing story of progress in education is designed to show that education is an investment. Opening with a

Unit Value

back-to-school party, the film shows how the educational leaders overcome their opposition and become more progressive. Fine for P.T.A. and community school groups.

PORK ON THE FARM (USDA)

636.4 22 minutes—sound 2

Hog killing time in Georgia! Luscious sugar ham, fine chops, and crisp bacon tantalize us in the opening scenes of the film. We are introduced to the best methods of killing and curing pork on the farm. We are shown how the government has assisted the hog producers by teaching them to butcher their own hogs. Various curing methods are shown.

POSTURE (EASTMAN)

613 15 minutes—silent 1

Demonstrates the effect of posture upon the size of the chest, the position of the abdominal organs, and general personal appearance. Shows how good sitting and standing posture may be developed.

POSTURE AND EXERCISE (EBF)

613 10 minutes—sound 3

Explains muscle activity and the physiology of exercise. Concepts presented include the relation of the nervous system to the skeletal muscles, motor units of work, development of endurance, muscle tonus in relation to posture, and peripheral circulation as it is related to general physical efficiency.

POTASH IN SOUTHERN AGRICULTURE (POTASH INST.)

131.8 20 minutes—sound—color ..... return postage

Covers fertilization and potash deficiency symptoms of cotton, tobacco, and corn at several Experiment Stations in the South, also crops in the field, fertilizer placement work, and scenes in a fertilizer factory.

POTASH PRODUCTION IN AMERICA (POTASH INST.)

631.8 40 minutes—sound—color ..... return postage

Shows the location and formation of American deposits and scenes of mining and refining of potash in California and New Mexico.

POTTERY MAKING (EBF)

738 11 minutes—sound 3

Shows a professional potter at work mixing clay preparatory to centering it on a wheel, shaping, trimming, and preparing it for firing. An Indian bowl is constructed by the ancient method of building up and shaping coils of clay, on which a primitive design is later added. Use of a plaster cast in the molding of duplicate pieces is demonstrated. The art of making angular shaped pottery by cementing slabs together; also methods of decorating and firing; techniques of applying glazing slip by dipping, brushing, spraying and pouring.

POULTRY—A BILLION DOLLAR INDUSTRY (USDA)

636.5 28 minutes—sound 2

The magnitude of the poultry industry and how it is conducted are shown in this film. Scenes include poultry farms, hatcheries, poultry dressing and handling of poultry products.

POULTRY ON THE FARM (EBF)

636.5 10 minutes—sound 3

The appearance and habits of adult and young chickens, ducks,

Unit Value

geese, and turkeys are presented in this film. Includes such subjects, with their natural sounds, as chickens roosting, feeding and drinking; comparative appearance of hen and rooster; brooder house and chicks; gathering of eggs; incubation of eggs; egg embryos; chicks hatching; ducklings just hatched on outdoor nests; ducklings feeding and diving in water; goose, gander, and goslings.

POWER AND THE LAND (USDA)

631.3 39 minutes—sound 2

In 1939 the Rural Electrification Administration produced one of the government's most notable documentary films. Deals with the economic and social significance of rural electrification.

POWER WITHIN (USBM)

621.4 20 minutes—silent 1

Shows scenes of early experiments to determine suitable fuel for use in internal-combustion engines. Parts of the automobile engine disassembled are seen and then the assembling is shown by animated photography.

PRAIRIE PROVINCES OF CANADA (EBF)

917.1 10 minutes—sound 3

Manitoba, Saskatchewan, and Alberta—Districts of Mackenzie, Keewatin, and Franklin. This is one of the leading grain-growing regions of the world, wheat being the principal crop.

PREVENTING BLINDNESS AND SAVING SIGHT (NAT. SOC. FOR BLIND)

617.7 20 minutes—silent 1

Shows the causes of blindness, and the simple precautions which, if observed, will preserve the vision of many people.

PRICE OF VICTORY (OWI)

940.531 13 minutes—sound 1

Henry A. Wallace, Vice President of these United States, explains the ideals we are fighting for and the price we must pay for Victory. Here in a motion picture, Mr. Wallace presents a condensation of the now famous speech which he delivered before the Free World Association in New York City on May 8, 1942.

PRICES UNLIMITED (OWI)

339.4 10 minutes—sound 1

A powerful presentation of what would happen to prices in this country if we did not have rationing.

PRIMARY CELL, THE (EBF)

621.35 10 minutes—sound 3

Photographic scenes demonstrate several phenomena of cells. Animated drawings explain in detail the operation of the dry cell in terms of electron action including ionization of the electrolyte, electron flow through circuit, action at electrodes, polarization and depolarizer. Demonstrations reveal the operating characteristics of a cell and of several cells (or battery) in both series and parallel connections.

PRINCIPLES OF COOKING (EBF)

641.5 11 minutes—sound 3

Explains the changes that take place in meats and vegetables upon the application of heat. Methods of cooking meats and vege-

Unit Value

tables demonstrated include boiling or cooking by direct contact with water; using the double boiler or cooking by indirect steam; using the steamer cooker and the pressure cooker or cooking by direct steam; deep frying; pan frying; broiling; braising; and baking or roasting.

PRINCIPLES OF REFRIGERATION, THE (EBF)

621.5 10 minutes—sound 3

An excellent film study which deals with the discovery and development of refrigeration—shows the application of its principles in commercial and household uses for the preservation of food, and clearly presents a concise story of the modern necessity.

PROBLEMS OF FLIGHT (EBF)

629.13 11 minutes—sound 3

Describes the use of the plane's controls in taking off, climbing, banking, stalling, spinning and recovery, diving, gliding and landing. Superimposed animated diagrams help to clarify the action of forces acting on the plane while executing these maneuvers.

PRODUCING CRUDE OIL (EASTMAN)

665.5 15 minutes—silent 1

This picture is divided into the following units: surveying in the mid-continent oil fields, erection of a derrick, rotary and cable-tool methods of drilling, preparing for the flow, the strike, laying of pipe lines, and the location of our principal oil fields.

PUEBLO DWELLERS (EASTMAN)

970.1 15 minutes—silent 1

Pictures of the home life of the Pueblos of New Mexico, showing an Indian village, adobe dwellings, method of planting corn, squaws preparing tortillas, baking in an outdoor oven, basket-weaving, pottery-making, ceremonial dances, and a government Indian school.

PUERTO RICO (EASTMAN)

917.295 15 minutes—silent 1

Indicates development of this island under United States control, and shows how location and climate make it a rich producer of agricultural raw materials. The units are: San Juan; Schools and Colleges; Rural Life; Agricultural and Industrial Products.

PURIFYING WATER (EASTMAN)

628.1 15 minutes—silent 1

Lake water, the "crib" animation of operation of "crib," the pumping station. Removing sediment, settling tanks, and animation showing operation, action of aluminum sulphate, sand and gravel filters, animation showing action, a filtration plant, cleaning sand, how water is contaminated, a safe well. Disinfecting water, chlorination plant, animation showing action of chlorine. Testing water, bacteriological laboratory, and how tests are made.

PYGMIES OF AFRICA (EBF)

916.7 20 minutes—sound 5

The film depicts subsistence of Pygmy tribes living in the Congo River Region of Central Africa. Mode of living, gathering of food, hunting methods, animals native to the region, a community game hunt ,and bartering processes are among the many phases of native life presented. Witch doctor mysticism is very interesting as are the native superstitions.

Unit Value

QUALITY MILK (USDA)

637 10 minutes—silent 1

Approved methods of dairying for high-quality production.

R.A.F. AND 8TH AIR FORCE REPORT FROM BRITAIN (OWI)

940.544 11 minutes—sound 1

Shows the price of raids over Germany in loss of lives and bombers.

RAILROAD SIGNAL, THE (N. Y. CENTRAL)

385 16 minutes—sound 2

Development of signals from old black "high" ball to modern electrical labyrinths. Simple, interesting, highly informative insight into railway operation.

RAIN ON THE PLAINS (USDA)

631.4 8 minutes—sound 1

The fight to save the soil and conserve the scanty water supply on the great plains.

REACTIONS IN PLANTS AND ANIMALS (EBF)

581 11 minutes—sound 3

After first characterizing the concepts of "stimulus" and "reaction," the film presents a study of different types of reactions in plants and animals. Directed reactions in a field of force (tropisms) are studied first; then higher reactions including reflexes and chains of reflexes lead up to a review of nervous system activity. Such reactions as geotropism, phototropism, stereotropism, galvanotropism, and rheotropism are studied in detail. Time-lapse photography is employed to illustrate geotropism (response to gravity).

REALM OF THE WILD (USDA)

598.2 27 minutes—sound—color 2

Our national forests are great wilderness homes for America's wild-life and abundant with numerous species of colorful wild flowers. One-third of all our big game animals and myriad smaller animals and birds claim the national forests as their home. It is commonly believed that if they are protected from the guns of hunters and snares of trappers this is sufficient to keep them healthy and happy. This picture reveals that even more vital than game laws to our wild birds and animals is an assured year-round supply of food. Each year thousands of deer which should have been harvested by hunters are lost by winter starvation. For this reason wildlife populations must be limited—kept in proportion to the land's productive capacity.

RECEIVING RADIO MESSAGES (EBF)

621.384 11 minutes—sound 3

Describes by means of animated drawings the principles of a radio receiver. It explains the problem of tuning; the capacity of the variable condenser, the inductance of the coil and resonance. The film demonstrates the need of detection and how it is achieved by a crystal. The operation of the earphone is explained together with the production of audible sound waves.

RECONNAISSANCE PILOT (OWI)

940.544 30 minutes—sound 3

This film shows how the Air-Force secures information on damages inflicted by previous raids upon the enemy.

Unit Value

RE-CREATION (USDA)

917.3 33 minutes—sound 1

Depicts the modern workaday world and its effect on human beings—nervous tension, etc. Shows how the U. S. Forest Service and the CCC join in making recreational facilities possible.

REGULATED DEER HUNTING (USDA)

591.5 20 minutes—sound 2

A film picturing wild life in the Pisgah National Forest near Asheville, North Carolina. It shows the methods employed in removing surplus deer, shipping fawns, preparation of milk for their feeding, and their transfer to game preserves.

REMEMBER THESE FACES (USN)

940.547 18 minutes—sound—color 2

Shows the wounded in a great invasion of the Pacific. Follows the wounded men from the front line to hospital ship and records the rapid transition from front-line casualties to men safe in the hands of modern medicine.

REMNANTS OF FRONTIER LIFE (HARTLEY)

917.5 20 minutes—sound 4

This film presents a day in the life of a typical family of the southern highlands. It shows the conditions under which they live and work.

REPORT FROM THE BEACHHEAD (OWI)

940.534 10 minutes—sound 1

Shows the fighting and casualties involved in securing the Anzio beachhead.

REPORT FROM RUSSIA (OWI)

914.7 7 minutes—sound 1

Shows the strength of Russia—not the guns and tanks and planes, important as they are, but the people of Russia—19,000,000 women planting and harvesting crops, 5,000,000 women in industry, 5,000,000 children on farms, anti-aircraft batteries blasting Nazi raiders from the sky over Moscow, while women and children calmly seek safety in the subway.

REPORT ON CHINA (OWI)

940.535 33 minutes—sound 3

Highlights the record of American-Chinese cooperation for victory. It portrays the Chinese soldiers, General Chennault in directing Chinese and American military aviation, the building of the Stilwell road, and the "over the Hump" service of the US Army Air transport command.

REPRODUCTION AMONG MAMMALS (EBF)

612.6 10 minutes—sound 3

Actual photography, animated drawings, microcinematography, and three dimensional animations are used in presenting the story of embryology. The domestic pig was chosen for the purpose of illustration. The story is fundamentally complete from the formation of the original newborn pig, including such processes as fertilization, cleavage, blastulation, gastrulation, formation of neural folds, development of membranes and embryonic circulation and parturition.

Unit Value

RESURRECTION (FRENCH)

940.535 20 minutes—sound 2

The tragic and brave story of the French people from 1940 to 1943 is told through official scenes of the terrible days of blitz and invasion, followed by the courageous efforts of the fighting forces to redeem the spirit of France.

REWARD UNLIMITED (OWI)

610.7 10 minutes—sound 1

The great need for Cadet nurses is dramatized in this film. When Peggy's fiance goes off to war, she joins the U. S. Cadet Nurses Corps. The picture takes us through her training as student nurse and shows the rewards that come from a war job well done.

RHAPSODY IN STEEL (FORD)

629.2 30 minutes—sound 3

Fantastic and highly modernistic portrayal of the manufacture at the Rouge Plant of the Ford Motor Company, with special musical score.

RIGHT OF WAY (OWI)

385 7 minutes—sound 1

Shows how America's transportation lines now head straight for the battlefront. This may mean that your train will be late, that your car will be stored, that you won't have packages delivered, that you won't get a seat on the plane. Shows a troop train, a freight train, and a heavily laden truck rushing loads to a convoy slated to sail soon. They have the right of way and they deliver the goods on time.

RIGHT TO WORK (AM. FILMS)

338.9 12 minutes—sound 1

Presentation of the view that the American System of private initiative and of private business and industry best serves the interests of all the American people, and that labor and capital, working together for the common interest, under a government which serves as a just umpire, is the key to the solution of our economic and social problems and the best guarantee of the prosperity and freedom of all of us.

RIO GRANDE (EASTMAN)

917.8 15 minutes—silent 1

The Rio Grande River, first as a boundary between Mexico and the United States, then showing the people living along the 1,300 miles of its course, also irrigation and fruit growing along the lower Rio Grande. The source of the river; the upper Rio Grande; the middle, and the lower Rio Grande are treated separately in the film.

RIVER, THE (USDA)

917.7 30 minutes—sound 2

One of the outstanding social documents of our times. The great Mississippi River system has influenced the land and people over two-thirds of our country. Unfortunately, in the haste of economic expansion, these waterways and the surrounding forests and farms have been ruthlessly misused and have led to great human suffering. Shows the devastation resulting from cut-over forests—relentless floods with loss of lives and property. Offers some suggestions for improving the Mississippi Basin and for pre-

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venting future waste. The story is told by an unusual combination of images, words, and musical score, resulting in a highly stimulating film.

ROADS SOUTH (OIAA)

629.13 20 minutes—sound 2

Pictures in an interesting and educational manner the various means of transportation in Latin-American countries.

ROBIN RED BREAST (EBF)

598.2 11 minutes—sound 3

The dramatic story of a robin family from the time father and mother robin build their nests until the baby robins are old enough to take care of themselves. Fine film.

ROMEO AND JULIET (TFC) (See regulations—last page)

822.3 40 minutes—sound 8

Limits itself to those sequences which deal directly with the love story of Romeo and Juliet from the time the two families, the Montagues and Capulets, enter the cathedral in Verona through the first meeting of Romeo and Juliet at the Capulet ball and the final scene at Juliet's tomb.

ROOTS OF PLANTS (EBF)

581 11 minutes—sound 3

Presents examples of tap, fascicled and fibrous roots, and treats their structure and function. Microphotography makes visible the passage of a root through the soil and the movement of protoplasm in a root-hair. An osmosis experiment is demonstrated. The formation and storage of starch and sugar are explained.

ROSE BOWL FOOTBALL, 1937 (EASTMAN)

796.33 10 minutes—silent 1

Scenes taken at the Pittsburgh-Washington 1937 Rose Bowl game, played at Pasadena, California.

ROUGH TURNING BETWEEN CENTERS (C)

621.9 12 minutes—sound 3

The procedures followed in setting up an engine lathe for a rough turning job between centers, on a piece already cut to length and centered. Safety precaution in dress and work, necessity of constant reference to blueprint, lubrication of machine, care of centers, and proper use of various controls on the lathe.

RUBBER (EASTMAN)

678 15 minutes—silent 1

In this film we go from the plantation in Sumatra where rubber trees are scarred and crude rubber processes shown, to the United States where we see rubber converted into tires, tennis shoes and fountain pens.

RURAL LIFE OF MEXICO (CORONET)

917.2 10 minutes—sound—color 5

Highlights of the film include scenes of primitive agricultural practices, laundering as carried on in mountain streams and primitive communal strone tubs, home life, regional costumes and two colorful sequences depicting traditional dances. The film closes with a visit to a quaint and colorful fishing village on Lake Patzcuaro.

Unit Value

RUSSIA (EASTMAN)

914.7 15 minutes—silent 1

Its people; its public buildings, old and new; conditions in the cities, in the factories, and on the farms. Glimpses of Moscow and urban life; Leningrad and industry, and the development of agriculture.

SAFEGUARDING MILITARY INFORMATION (OWI)

323.4 10 minutes—sound 1

Stresses the importance of secrecy on the part of military personnel and workers engaged in defense activities.

SAFETY AT HOME (EASTMAN)

614.8 8 minutes—silent 1

Illustrates safety practices for children in the home,—care of playthings; hazards of climbing on unsteady furniture; fire; loose rugs, etc.

SAFETY AT PLAY (EASTMAN)

614.8 8 minutes—silent 1

Contrasts safe and unsafe places to play; safety in the use of play equipment; good habits in play; proper care of the playground; and first aid for minor injuries.

SAFETY IN THE HOME (EBF)

614.8 11 minutes—sound 3

Designed to awaken interest in the need for safe homes. First the film tells of the frequency of home accidents and of the number of persons thus injured each year. Then one family's campaign to eliminate accidents in their home is shown in detail. Many safety devices, including those for the garage, workshop, stairs, playroom, bedroom, and kitchen are included.

SAFETY VACATION (EASTMAN)

614.8 15 minutes—silent 1

Film deals with safety in the water, good swimming precautions; boating; safe conditions in camp; building fires, etc.

SALT OF THE EARTH (USDA)

631.1 20 minutes—sound 2

Stresses the fact that farming is a business which vitally concerns every American and brings about a greater appreciation of the farmer's problems and services. 4-H Club activities are shown.

SAO PAULO (OIAA)

918.1 20 minutes—sound 2

An interesting study of progress in Brazil's second largest city, one of the fastest growing cities in the world. Here we see a cross-section of the modern South America with its busy industry, its growing commerce, its beauty of art and architecture, and its up-to-date trends in education.

SAVE THE SOIL (USDA)

631.4 10 minutes—sound 1

A general discussion of the problem of soil conservation. Shows the part that soil has played in history.

SAVING THE GARDEN CROP (USDA)

635 10 minutes—sound 1

This is a story of how one family harvests and stores vegetables

Unit Value

from its victory garden. How this is accomplished provides the basic information for the film.

SCHOOLS TO THE SOUTH (OIAA)

379.8 12 minutes—sound 1

Gives an accurate picture of the educational systems now operating in the other American republics.

SCIENCE AND AGRICULTURE (EBF)

633.3 11 minutes—sound 3

Reveals the interdependence of science and agriculture in our modern life. Traces the soy bean from its cultivation in China through its culture and use in the United States. Describes the plant's characteristics and its value to soil conservation. Reproduced conversations treat problems of its cultivation and harvest. Processes of extracting soy bean oil and preparation and use of soy bean by-products in home and industry are shown.

SECRETS (USN)

541.2 4 minutes—sound 1

This film asks of the enemy the question, "What would you have given to know?" and then pictures in some detail the use of radar aboard ship to locate enemy targets, and of a new type flash light used to spot the objective of attack. It also pictures the explosion of the atomic bomb, refers to the work done at Oak Ridge, speaks of the new uses of atomic energy, and promises that after World War II Americans will never again be unprepared.

SEED DISPERSAL (EBF)

581 10 minutes—sound 3

The film presents many interesting ways by which seeds of plants are scattered in order to insure the propagation of the species. The methods illustrated include dispersal by the wind, transportation by animals, and forceful propulsion from the seed-case. The dramatic value of these examples is increased by the use of time-lapse photography. Attention is given to the germination of seeds under various conditions. The struggle for survival in the plant world is vividly portrayed.

SEMPER PARATUS (OWI)

784 7 minutes—sound 1

The Coast Guard song, illustrated by war scenes.

SENDING RADIO MESSAGES (EBF)

621.384 10 minutes—sound 3

Animated drawings clarify the basic principles of radio transmission. The operation of the following units is graphically explained: the microphone, the transformer and the modulator. Fundamental concepts are explained, as for example: sound waves, direct currents, alternating currents, voice current, carrier wave, and amplification. Photographic scenes are used to reveal the importance of radio and to illustrate operating units in a modern transmission station.

SERIES AND PARALLEL CIRCUITS (EBF)

621.31 11 minutes—sound 3

Planned as a sequel to "Elements of Electrical Circuits." Takes up first, the relationship between resistance, current, and voltage in series circuits and then in parallel circuits. Type problems are presented by demonstration, with explanations in animation. The

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practical advantages and disadvantages of each circuit is illustrated and clarified with common examples. A simple series-parallel combination is described and explained.

SERVANT OF THE PEOPLE (TFC) (See regulations—last page)

342.73 20 minutes—sound 6

The story of the making of the American Constitution. The Constitutional Convention is accurately depicted, with the various arguments and agreements during its course. Washington, Hamilton, Madison and Franklin are shown. The signing of the Constitution. An excellent account of the Continental Congress.

SEWAGE DISPOSAL (EASTMAN)

628.3 15 minutes—silent 1

Purification by Imhoff tank and sprinkling filter; purification by sand filtration; discharging sewage into the ocean with the ebb tide.

SHELL-FISHING (EBF)

639 11 minutes—sound 3

View of oyster, crab, clam, and lobster fishing industries on eastern coast of United States. Planting, dredging, and preparing crops for market.

SHELTER (EBF)

728 11 minutes—sound 3

The effect of climate and availability of materials on shelter. The houses of the Eskimos, Arabs, equatorial Africans, and other backward races are explained. The richness of advanced cultures is reflected in the elaboration of shelter.

SHEP, THE FARM DOG (EBF)

636.7 11 minutes—sound 3

Follows an attractive collie dog during his busy day about the farm. After herding the cows to pasture and routing the chickens from the garden, Shep is rewarded with a good breakfast. Later, Shep pursues a woodchuck to his hole and, after fruitless digging, rejoins Tommy, his young master for a hike and swim, during which he retrieves sticks and assists Tommy in swimming to shore.

SICILY AND BOMBS ROCK ITALY (C)

940.544 13 minutes—sound 3

Shows the work of our forces and the bombing of Italy.

SICILY—KEY TO VICTORY (OWI)

940.542 18 minutes—sound 2

Stresses the fact that the success of the Sicilian campaign began in the wheatfields and factories of Canada and was due to the combined efforts of civilians.

SIGN OF DEPENDABLE CREDIT (USDA)

332.3 20 minutes—sound 2

Designed to show how the Production Credit Ass'n was organized and the manner in which it operates. We are shown how the farmer of today must utilize the new improvements and inventions in order to compete in this highly specialized world. In order to do this many farmers must rely on loans which they obtain from the Production Credit Ass'n.

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SILENT WAR (OIAA)

616.9 10 minutes—sound 1

The war against Yellow Fever now being waged by scientists in the jungles of Colombia. Shows how vaccine is made, dried, frozen, and transported by mule-pack to a town in the jungles of Colombia and how Yellow Fever is slowly being conquered in equatorial South America. Describes how this research is making United Nations jungle fighters immune to the dreaded disease.

SILVER (EASTMAN)

739 15 minutes—silent 1

Important uses of the metal which today plays a leading part in many industrial activities. Shows the preparation of sterling silver and, using the manufacture of a sterling silver spoon and a tray as an illustration, shows the processes involved in the production of flat-ware and hollow-ware. The process of using silver plating for mirrors and photographic emulsions are shown.

SIMPLE MACHINES (EBF)

621 11 minutes—sound 3

Shows the basic features of the lever, the inclined plane, the wedge, the pulley, and the screw. Applications of these devices to modern complex machines are demonstrated. The evolution of the machine and its part in contemporary civilization is indicated.

SIMPLE MACHINES (EASTMAN)

621 15 misutes—silent 1

Built up, step by step, from the common lever to combinations of all six simple machines, this film will promote an understanding of the operating principles of all complex machines.

SIX-LEGGED SABOTEURS (USDA)

632.7 10 minutes—sound 1

Humorous cartoon sequence followed by a study of closeups of insects. Shows significance of controlling insect pests that destroy crops and spread disease during wartime.

SKIN (EASTMAN)

612.7 15 minutes—silent 1

The skin of the fish, crocodile, ostrich, elephant and bear; the human skin is seen through a magnifying glass; structure of the skin; growth of cells; secretion of sweat; structure of the hair and nails.

SMOKE (USDA)

614.84 15 minutes—silent 1

Ways of preventing forest fires through careful handling of camp fires.

SNAPPING TURTLE (EBF)

598.1 11 minutes—sound 3

The life story of an interesting reptile in its natural habitat. Unusual photographic studies permit observation of the snapping turtle's detailed features, habits, and its encounters with other animal life. The laying of the eggs and the hatching are two outstanding episodes. A painted turtle is introduced for purposes of comparison. The winter hibernation concludes the presentation.

SOLAR FAMILY, THE (EBF)

523.2 10 minutes—sound 3

The evolution of the solar system is revealed according to the

Unit

planetesimal hypothesis. This is followed by a port[illegible] real and apparent motion of the planets. Among the [illegible] nomena presented are: the phases of Venus; retograd[illegible] motion of Mars, Jupiter and its satellites; the apparent motion of Saturn's rings; orbits of the planetoids, Eros and Anteros; orbit of Halley's comet; and the motion of the solar system in space.

SOME FRIENDLY BIRDS (EASTMAN)

598.2 15 minutes—silent 1

Birds that have similar tastes and habits: martins, chickadees and nuthatches, the house wren, bluebirds, woodpeckers—building nests, feeding their young and the "Spring dance" of the flickers.

SOMETHING YOU DIDN'T EAT (USDA)

613.2 10 minutes—sound—color 1

A Walt Disney cartoon showing through use of animation the need for a balanced daily diet of foods from each of the seven basic groups.

SONG SHORTS (OWI)

784 9 minutes—sound 1

Includes the following: "Caissons Go Rolling Along," "Anchors Aweigh," and "Keep 'Em Rolling," with background shots of action.

SOUND RECORDING AND REPRODUCTION (EBF)

534 10 minutes—sound 3

Describes how sound is converted into light rays to produce sound motion pictures, and how the projector is able to change the light rays back into sound waves. We learn from the film how the two great systems operate, sound recording by variable area and sound recording by variable density.

SOUND WAVES AND THEIR SOURCES (EBF)

534 10 minutes—sound 3

Demonstrates and explains the three types of sound sources, including the vocal organs. The transmission of sound waves through the air is visualized. Such characteristics of sound waves, as frequency, amplitude, wave length, fundamentals, and harmonics, are explained with acoustic accompaniment. The high-speed camera and an oscilloscope help to clarify the phenomena portrayed.

SOUTH CHILE (OIAA)

918.2 18 minutes—sound 2

Pictures the region at the very southernmost part of South America. Here much rain falls, and high winds blow most of the time. Grand glacial scenery and the story of sheep-raising on a large scale feature this description of distant Patagonia.

SOUTH OF THE BORDER WITH DISNEY (OIAA)

918 40 minutes—sound—color 4

The camera story of the trip made by Walt Disney and his staff of artists to Central and South America. From the people, places, and animals they saw, the artists made sketches of new cartoon characters some day to be produced on the screen. A new character, Joe Carioca the parrot, joins Donald Duck and Pluto during the film. Many scenes of dancing and native rhythms.

SOUTHEASTERN STATES (EBF)

917.5 10 minutes—sound 3

Delineates the variety of living patterns in Arkansas, Louisiana,

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Alabama, Florida, Georgia, South Carolina, North rginia, Kentucky and Tennessee, with a brief historical introduction. Stately plantation homes, mountaineer cabins, modern homes in southern cities, rolling blue grass country, orchards, cotton and tobacco fields, farm and factories—all woven together to tell the story of the region's twenty-eight million people and how their welfare is bound up with the national economy.

SOUTHERN BRAZIL (OIAA)

918.1 20 minutes—sound 2

Shows Brazil's march of progress as exemplified in its southernmost area, the states of Parana, Santa Cantarina, and Rio Grande di Sul. Pictures Brazil's great cattle country and its granary.

SOUTHWESTERN STATES (EBF)

917.6 10 minutes—sound 3

Portrays aspects of life in areas of Texas, Oklahoma, New Mexico, and Arizona. Reference is made to the topography, rainfall, and other characteristic features including the imprint of Spanish and Indian cultures. Irrigation, stock raising, mining, agricultural, oil extracting and refining are among the occupational activities shown. The exchange of goods and services with those of other sections of the country is depicted with animated photography.

SPEEDING YOUR READING (T.A.E.)

372.4 10 minutes—sound 3

Designed to improve reading speed of high school and adult classroom audiences by giving the student an understanding of correct readin ghabits, the film concentrates on developing correct eye movements. We see the most common reasons for slow reading and suggestions are made for correction of reading fault.

SPIDERS (EBF)

595.4 10 minutes—sound 3

The nursery-web, the orb-web, the funnel-web, and the trap-door spiders appear in this picture. The complete life cycle of the first is presented, while the peculiar habits and characteristics of the others are shown. The construction of an orb-web is shown through every step of the procedure. The retreat of the trap-door spider is explained and illustrated pictorially. Also scenes of the spiders as hunters and providers.

SPOKANE AND ITS INLAND EMPIRE (SPOKESMAN REVIEW)

917.97 45 minutes—sound—color 4

This is a dramatic and entertaining presentation of Spokane and Inland Empire industries and resources, with colorful scenes in wheat fields, orchards, forests, livestock ranches, lumber camps and mills, mines and smelters, gardens and parks, and revealing scenes of the city's newspaper industry. Included are the striking views of the completed Grand Coulee Dam and the Columbia Basin Irrigation project. Presents the first airplane views ever taken of the 2 billion dollar atomic bomb plant at Hanford in Eastern Washington.

SPRING SHOWS AND BEEF CATTLE (USDA)

636.2 10 minutes—sound 1

Shows work stock and beef cattle on display, including a discussion of pastures and feeding. Emphasis is upon breeding up from native stock.

Unit Value

STAR SPANGLED BANNER (AM. FILM)

784 10 minutes—sound 1

A story of the life of Francis Scott Key and the writing of "The Star Spangled Banner."

STAR AND SAND (BIS)

916.2 20 minutes—sound 2

Following the Nazi invasion of Yugoslavia, a group of about 3,000 evacuees was taken to Italy and then to an Egyptian desert camp by the UNRRA. This document shows how these people, torn away from their native environment of green mountain valleys, reconstructed their morale, their culture, and their community living in the barrenness of a desert camp.

STEAM LOCOMOTIVE (NY CENTRAL)

621.13 22 minutes—sound 2

The Hudson type locomotive is the chief subject of the film, and its construction, operation, maintenance and capabilities are clearly explained. Scenes showing magnificent trains in action precede the scenes that depict service and repair in the roundhouse.

STILLWELL ROAD (OWI)

940.535 50 minutes—sound 4

Here described is the desperate and costly defense of the thin arterial line which pumped a lifeblood of oil, food and fighting steel into China. Names such as Stilwell, Merrill, Chennault, Wingate and Cachran become alive with interest as we see these men in action. This is the campaign that took three years to win, claimed thousands of lives and cost billions of dollars.

STOP FOREST FIRES (USDA)

634.92 10 minutes—sound 1

A general discussion of the problem of the forest fire, with striking scenes from recent major conflagrations is given. We are shown forest fire fighting, the death toll of large forest fires, the damage to forests, wildlife and soil.

STORY OF A SPARK PLUG (USBM)

629.2 31 minutes—sound 2

Importance of spark plugs, their parts, the mining of sillimanite, steps in the making of spark plugs, their testing, packing, and installation are shown. Finally their effect on a car's performance is emphasized.

STORY OF A TRANSPORT (OWI)

623.8 20 minutes—sound 2

A timely and unique treatment of an important and thrilling war operation. This picture records the colorful career of the 24,000-ton transport, Wakefield. It dramatically links the ship's romantic past as the peacetime luxury liner, Manhattan, with her grim, war-service present.

STORY OF CANADIAN PINE (NFB)

634.9 30 minutes—sound 3

The entire story of Canadian white pine is covered in this film.

STORY OF COAL (KB)

662.6 10 minutes—sound 3

Shows how the earth was in a molten state millions of years ago and how it then began to solidify causing the forming of moun-

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tains. Jungles of giant trees grew. Animated diagrams show the work of the sun on growing things. Then we have lightning, rain and a hurricane. Decay that takes place in swamp land and the surf pounding against the shore. All of these are shown to have helped in forming peat beds and later coal.

STORY OF DR. JENNER, THE (TFC) (See regulations—last page)

616.9 10 minutes—sound 3

An interesting film which tells the story of the discovery of vaccination against smallpox. The story is told in such a manner that it is not soon forgotten.

STORY OF ELECTRICITY (KB)

537 11 minutes—sound 3

Deals with the early discovery of the lodestone and the properties of magnetism. Depicts a few of the many episodic events which lead up to the use of magnetism in the production of electricity. Shows how the discoveries of Morse, Edison, and others have contributed to our modern world.

STORY OF LEATHER (AM. TANNERS)

675 30 minutes—silent 1

Opens with a dusty, spirited plains round-up of cattle. Then we see the hides of these animals traced through leather making processes into shoes, bags, clothing, upholstery and other products.

STORY OF OUR FLAG (McCRARY)

929.9 10 minutes—sound 3

Shows how the development of the United States and its territorial expansion are tied in with the changes in the flag until it reached its present status.

STORY OF STEEL (KB)

669.1 11 minutes—sound 3

Describes the manufacture of steel and shows its important uses in the world today.

STORY OF WHEAT (KB)

633.1 10 minutes—sound 3

Deals with the history, growth, harvesting and preparation of wheat for its most important use as bread.

STORY WITH TWO ENDINGS (OWI)

332.4 10 minutes—sound 1

The theme of this impelling film is inflation. The scene is the U.S.A. Time is November, 1918 when men were returning from war. We are shown that there are four ways in which we can avoid the situation after the first World War and write a story with a different ending—not one that spells economic depression but one that spells prosperity with good business and agricultural prosperity for the Nation.

STRADDLE AND SURFACE MILLING TO CLOSE TOLERANCE (C)

621.9 20 minutes—sound 3

Methods and procedures for rough milling a solid bar of stock all over and finish milling the same piece to a given shape and size. Procedures used when setting up a gang of cutters on an arbor for milling to close tolerances.

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STRADDLE MILLING (C)
621.9 12 minutes—sound 3
Procedures followed when straddle milling a pair of connecting rods held in a fixture. The function of fixtures in production work. A setting gage is used to check the cutter set-up. The use of coolant on the cutters, the checking of each cut, the advantages of the fixture, and the necessity for keeping the table and the work free of chips and burrs.

STREET SAFETY—FOR PRIMARY GRADES (EASTMAN)
614.8 8 minutes—silent 1
Graphically sets forth the safety principles that should govern the outdoor activities of children.

STRENGTH OF THE HILLS (USDA)
634.9 10 minutes—sound 1
Explains the dangers and losses by forest fires and the methods to increase woodland yield.

STRING CHOIR, THE (EBF)
787 11 minutes—sound 3
Opens with the string ensemble playing a selection from "L'Arlesienne" by Bizet. After the characteristics of the violin are explained a violinist renders a solo. The camera brings into focus the other instruments, and techniques involved in playing them .

SUFFER LITTLE CHILDREN (USDA)
940.531 10 minutes—sound 1
Here is the account of what war did to the children of Europe and what is being done to help them.

SUGAR REFINING PROCESS (DIXIE CRYSTALS)
664.1 30 minutes—sound 2
The story of sugar from the planting of the cane to the refining process. Modern methods of refining as compared to the old.

SUGGESTION BOX (OWI)
331.8 12 minutes—sound 1
How production in many war plants has been greatly increased by the ideas of the workers.

SULPHUR (USBM)
553.6 19 minutes—silent 1
Shows by animated photography how sulphur is melted 1,000 feet below the earth's surface by superheated water and forced by compressed air to the surface where it is run into huge vats and solidified; blasting and loading of sulphur into cars; how sulphur is used.

SULPHUR AND IT'S COMPOUNDS (CORONET)
553.6 10 minutes—sound—color 5
Sketches the highlights of the history of sulphur. Presents the mining of sulphur by the Fresch method. Studies the physical and chemical properties of sulphur and its compounds, particularly sulphur dioxide and sulphuric acid.

SUNFISH (EBF)
597 10 minutes—sound 3
Presents the life of the sunfish from the preparation of the nest, the laying and fertilizing of the eggs, the hatching of the eggs, and the development of the fish to maturity.

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SURVIVAL OF THE FITTEST (TAD)

613.7 20 minutes—sound 2

Shows how the fine background of physical conditioning of our Air Forces enables two American fighter pilots who are forced to parachute from a disabled plane to travel through battle-infested areas and reach safety.

SWIM AND LIVE (OWI)

797.2 20 minutes—sound 2

Swimming is no longer a recreational pastime to American soldiers sailing the seas bound for battlefronts all over the world, but is a grim matter of life and death. This film superbly photographed by the Army Air Force at Miami Beach shows how the Army is training its men to swim so that they may live.

SYMPHONY ORCHESTRA (EBF)

785 10 minutes—sound 3

Two Wagnerian compositions are featured in this film in the "Ride of the Valkyries" and the Prelude to Act 3 of "Lohengrin." The work of the conductor, Howard Barlow, is caught by unique camera angles as he interprets these brilliant scores and through his orchestra of Philharmonic players, brings this interpretation into sound.

TABLEWARE (EASTMAN)

738 15 minutes—silent 1

Modern methods of manufacture, as compared with old, shows perfection in preparing clays for pottery. Modeling, casting, and firing, decorating tableware.

TALE OF TWO CITIES (TFC) (See regulations—last page)

F 40 minutes—sound 8

A condensed school version based on the Charles Dickens novel. This version not only stimulates students in English literature to a further study of this classic novel but social studies groups will find interesting material in observing the causes of mass rebellion against the aristocracy of France during the revolutionary period.

TANKS (OWI)

358 10 minutes—sound 1

Graphically describes the manufacture of the M-3 medium tank. Photographed at the Chrysler Detroit Tank Arsenal, Fort Knox, Kentucky, and an eastern seaport.

TARGET—BERLIN (OWI)

629.13 17 minutes—sound 2

The film tells how Canada mobilized her strength to turn out the Lancaster bomber. The crew of this first long range bomber is shown on its mission to Berlin.

TARGET FOR TODAY (OWI)

940.544 93 minutes—sound 4

TARGET FOR TODAY is the most comprehensive story ever told of an air bombing mission, and is perhaps the most complete combat factual film produced by the United States. It was produced, directed, and edited by Lt. Col. William J. Keighley, Chief of the Motion Picture Services Division, Office of Assistant Air Staff, Intelligence. It tells the story of a bombing raid from the planning stage, through briefing, take-off, flight, "bombs away," and

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return home, report of the fliers to intelligence officers and what is done with the information brought back. The cast is the famous 8th Air Force.

TARGET FOR TONIGHT (OWI)

940.544 45 minutes—sound 3

An account of an actual air raid by the Bomber Command of the Royal Air Force. New aerial photographs disclose the objective to be raided. Then comes staff planning, routine preparations, and the tension of the evening take-off. From this point the film follows a big Wellington bomber, through its bombing the target, engine trouble, wireless operator wounded, and finally its report back to headquarters.

TEACHING WITH SOUND FILMS (EBF)

371.33 10 minutes—sound 3

Based upon research and experimentation, this picture depicts methods of using the sound film in the classroom. Units of instruction at the intermediate, junior, and senior high school levels are shown. The parts played by the teachers, pupils, and the sound film are illustrated in the study of "Plant Growth," "Sound," "Work of Rivers," and other subjects. Because of the need for professional knowledge in this field, this picture will make a substantial contribution to classes in teaching method and in audio-visual instruction, as well as to teachers in service.

TEETH (EBF)

617.6 11 minutes—sound 3

Animated drawings and direct photography present four vital problems in connection with teeth: how teeth develop and grow; which foods help to build strong teeth; how to brush the teeth; and how the dentist cares for our teeth.

TEHUANTEPEC (OIAA)

917.2 10 minutes—sound—color 2

A visit to one of Mexico's most attractive villages—Tehauntepec. The film is a beautiful, colorful picturization of Mexican village life with its thatched roofs, picturesque countryside, and its faithfully preserved traditions.

TERRACING IN THE NORTHEAST (USDA)

631.4 11 minutes—sound 1

A soil conservation service film. Beautiful scenes of the countryside unfold as we learn how terracing is done—frequently to take care of serious soil erosion situations. Terracing is used successfully for growing potatoes, tobacco, truck farming and for fruit culture. It is necessary to inspect the terraces regularly and to keep the channels of the outlets clear. Much of America's oldest farming land is in this section.

TERRITORIAL EXPANSION OF THE U. S. (INT. GEO.)

973 22 minutes—sound 6

1783-1853. This film shows graphically the growth of this country from colonial times to its present continental size, exclusive of territorial possessions. This growth is depicted in chronological order in a manner designed to accord with that in which American history is taught in the classroom. Animated maps are used extensively to illustrate points, and the various boundary disputes are clearly explained. These maps are supplemented with authentic representations of history's great events. A review map at the

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end of the film re-emphasizes dates of various territorial acquisitions.

TERRITORIAL POSSESSIONS OF THE U. S. (INT. GEO.)

973 22 minutes—sound 6

Continues the story of American expansion begun in "Territorial expansion of U. S. from 1783 to 1853." The picture explains how Alaska, the Canal Zone, Hawaiian Islands, the Philippines, and the other far-flung insular possessions of the U. S. were acquired. Historic events pertinent to the acquisitions are portrayed. In addition views are presented making the student familiar with the distant possessions of the United States. Animated maps are used and the acquisition of the territories is presented in chronological order. The value of the territories, both commercial and strategic, is set forth.

THE MAN WHO MISSED HIS BREAKFAST (USDA)

613.2 10 minutes—sound 1

A delightful little story on the subject of nutrition, built around the Warren family—Mother, Father, Penny, Bill, Jr., and Uncle Bill, the man who missed his breakfast. Gives the seven basic food groups needed daily.

THE 957 DAY (OWI)

940.545 9 minutes—sound 1

Activity of the 5th fleet somewhere in the Pacific on the 957th day of the war is the theme of this impelling and intense incident of the war. It is a picture of the capture of an island in the South Pacific.

THE THOUSAND DAYS (OWI)

940.537 20 minutes—sound 2

The story of Canada from September, 1939, to late 1942, "The thousand days" of expansion and preparation for offense.

THEORY OF FLIGHT (EBF)

533 11 minutes—sound 3

Illustrates the application of physical laws to forces acting on airfoils. Wind tunnel tests and drag on plain and cambered airfoils. Control of airplane movements about vertical, lateral and longitudinal axes by means of the rudder, elevator, and ailerons, is demonstrated in pitching, rolling, and yawing

THERE'S MORE THAN TIMBER IN TREES (USDA)

634.9 33 minutes—sound—color 2

An old lumberjack carries you back to the "hell roaring nineties," and takes you through the cutting of the virgin forests in New England, the Lake States, the South, and finally winds up in the Pacific Northwest. The effects of forest-cutting practices on labor, the need for a nation-wide forest program to stop destruction of the resources, to keep forests producing, and to furnish more permanent jobs, better and more permanent communities are shown.

THERMODYNAMICS (EBF)

536.7 11 minutes—sound 3

Sequences deal with selected heat phenomena in advanced form. Molecular action in heat transfer, phenomena of combustion, mechanics of the steam engine, steam turbine, automobile and Diesel engines are explained in detail. The first and second laws of thermodynamics are explained.

Unit Value

THEY DO COME BACK (TB)

616.24 17 minutes—sound 3

The story of Roy and Julie, two young people who work for a living and plan to marry. Tuberculosis interrupts their plans. Roy has advanced tuberculosis—Julie is an early case. Both are admitted to the sanatorium. We see some characteristic tuberculosis association activities and the close working relationship of voluntary and official health forces. The time comes when Roy and Julie are able to realize their plans for a home of their own because they acted promptly.

THIRTY-SIX WEEKS BEHAVIOR DAY (EBF)

136.7 10 minutes—sound 3

The infant boy whose behavior day at 12 weeks was charted is now 36 weeks old. He has made striking progress. His reactions are compared with those which he experienced twenty-four weeks earlier. An animated clock announces the changing events of the day's schedule.

THIS AMAZING AMERICA (GREYHOUND BUS)

917.3 20 minutes—sound—color 3

On a radio quiz program a young history professor wins with a perfect 100% score. A young southern girl achieves a perfect 0 score and to her as well as to the winner a trip around the United States on a Greyhound bus is awarded. The "dumb Dora" questions of the girl afford the opportunities required for the young professor to give a few important and interesting facts about the places visited. Covers many points of interest and importance all over the country.

THIS IS ECUADOR (OIAA)

918.6 20 minutes—sound 2

Scenes of the Galapagos Islands, of Ecuador's resources, of Quito, and of life of the Indians in the primitive rural sections.

THREE CITIES (OWI)

940.537 10 minutes—sound 1

The story of three typical American cities, one seafaring, one manufacturing, and one rural, and how the war-workers in each tackled a problem of war-time living, and found a solution.

THREE COUNTIES AGAINST SYPHILIS (PUB. HEALTH)

616.9 17 minutes—sound 2

How control of syphilis is effected in three counties in Georgia; portable clinic; methods used; enlarged views of spirochete.

THREE LITTLE KITTENS (EBF)

636.8 10 minutes—sound 3

Discovered in the barn with their mother by a farmer's wife these kittens provide an opportunity for learning about the characteristics of cats in general. When about two weeks old they are carried by their mother to a new home in an old buggy, where they learn to eat, clean themselves, and to play. Later they have a skirmish with a dog and learn to catch mice.

THRUSHES AND RELATIVES (EBF)

598.2 11 minutes—sound 3

The habitats, feeding habits, brooding, development, and activities of the bush-tit, chickadee, hermit thrush, russet-backed thrush, robin, bluebird and water ouzel. Natural sounds of the different bird calls and songs add to the film's attractiveness.

Unit Value

TIMBER FRONT (NFB)

634.9 21 minutes—sound 3

Stresses the vital part which Canada's timber resources will play, not only in the war years, but also in the reconstructive social planning which will follow. The reckless exploitation of the forest in bygone days is shown, and the film emphasizes how every citizen can assist in the conservation of the forest resources.

TINY WATER ANIMALS (EBF)

591.92 10 minutes—sound 3

Life processes and activities of amoebae and paramecia are shown with the activities of the amoebae given major emphasis. Reproduction of amoebae is presented. Reveals other interesting creatures, such as the wheel animalcule, and swan animalcule.

TIPS FOR TEACHERS (JAM HANDY)

371 20 minutes—sound 3

Presents the three "P's" of good teaching. Explains the place and value of the teacher's Personality, dramatizes the importance of Preparation, and gives a living example of how the Presentation of the material is done best. The photography is in the classroom. Analogies are introduced to show how the teacher must use showmanship, salesmanship, and the ability of an actor to help in shortening the learning process.

TO WIN THE PEACE (US TREASURY WFD)

355.12 3½ minutes—sound 1

There's still a battle to be fought to help the maimed and scarred of the war. The battlefields now are the hospitals and rehabilitation centers of the nation.

TOOLS OF WAR (NFB)

940.537 20 minutes—sound 3

The first part of the film deals with the growth of the Nazi war machine showing how ersatz materials were substituted for the natural resources which Germany lacked. The second part shows Canadian mines, factories, fields and transportation systems mobilized for the war.

TOUCHDOWN THRILLS OF 1945 (BAILEY)

796.33 11 minutes—sound 3

Most sensational plays from the best games of the '45 season: Army-Navy, Purdue-Ohio State, Michigan-Ohio, California-U. C. L. A., Notre Dame-Illinois, Navy-Duke, Alabama-Tennessee, Pennsylvania-Columbia.

TOWN IN OLD MEXICO (OIAA)

917.2 10 minutes—sound—color 2

Puebla, Orizaba, and Fortin de las Flores are the three villages seen in this film. Seventeenth Century buildings of extraordinary architectural merit, and interiors of homes still in use are shown as classic examples of the architecture of the Spanish conquistadores. In Fortin de las Flores, flowers grow in such profusion they perfume the countryside for miles around.

TOYS FROM ODDS AND ENDS (BRANDON)

680 10 minutes—sound 3

Produced in cooperation with the Universal school of handicrafts. There is a brief display of several articles made from odds and ends of cloth, wool, rubber, yarn, etc., and then a detailed demonstration of the making of a small wooly dog is given.

Unit Value

TRANSPORTATION ON THE GREAT LAKES (EASTMAN)

386 15 minutes—silent 1

Formation of Great Lakes. Opening lake traffic. Bulk freighters and car ferries. Package and passenger liners.

TREASURE ISLAND (TFC) (See regulations—last page)

F 40 minutes—sound 8

Produced by Metro-Goldwyn-Mayer in 1934 and based on the well known story of Robert Louis Stevenson. Re-edited from the feature film. Starring Lionel Barrymore, Wallace Beery, and Jackie Cooper.

TREE OF LIFE (USDA)

634.9 25 minutes—sound 2

Portrayal of how the forestry resources of the U. S. have been depleted to the extent that regulated cutting is now necessary on both public and private timberland. Animated graphs comparing early population and forest lands to those of the present. Illustrations of how unregulated and complete stripping of forest land leaves ghost towns and floods in its wake. Methods of conservation: National Forests produce permanent supply by means of selected cutting; fire protection by lookout towers. Indications of the need for selected cutting on private lands.

TREES TO TAME THE WIND (USDA)

634.9 13 minutes—sound 1

The planting of windbreaks and shelterbelts in the prairie states. Where farmers are cooperating with the U. S. Forest Service in one of the most unusual tree-planting programs ever undertaken in an effort to reclaim land ruined by wind and drought.

TREES TO TRIBUNES (CHICAGO TRIBUNE)

676 30 minutes—sound 2

Shows the various steps required to produce a metropolitan newspaper. The scenes begin in the timberlands in Canada and end with delivery of the newspaper to the reader. Shows lumbering and paper making as well as the printing of the newspaper. Excellent for biology, chemistry, general science and social studies.

TRICKS OF TRADE FOR TYPISTS (EASTMAN)

652 15 minutes—silent 1

Demonstrates methods used by professional typists to speed up production. Particular attention is paid to backfeeding, notching carbons, card flipping, and methods of saving seconds.

TRIMBLES OF MAPLE STREET (OCD)

338 20 minutes—sound 2

The Trimbles of Maple Street cooperate with the other families on their block. Mr. Trimble, the block-lealer, organizes such campaigns as collecting books for servicemen, salvaging fats, planning share-the-ride groups and other timely patriotic movements.

TROOP TRAIN (OWI)

940.537 11 minutes—sound 1

Gives an impressive picture of the skill with which the Army and the American railroads are doing their job. It takes 75 trains, and a lot of cooperation to move one single armored division.

TRUCK FARMER (EBF)

631.1 11 minutes—sound 3

Treats the geography of the Rio Grande delta and provides

Unit Value

authentic recordings of the problems and activities of a truck farmer and his family. The labor question with respect to the employment of Mexican families for field work is portrayed. Planting, irrigating, spraying, harvesting, packing, and shipping truck crops are shown in detail.

TUBERCULOSIS: HOW IT MAY BE AVOIDED (EASTMAN)

616.24 15 minutes—silent 1

Tubercle bacilli are shown growing in the laboratory and in the lung tissue of the human body. A tuberculin test given, a positive reaction is obtained, and the daily routine at a preventorium is pictured.

TURKEY (EASTMAN)

915.6 30 minutes—silent 1

The new Turkey evolving under the modernizing influence of the Young Turks is shown. Life in Ankara, the new capital. Rapid strides in industrialization and agricultural activities.

TURNING WORK OF TWO DIAMETERS (C)

621.9 15 minutes—sound 3

Discusses operations followed when turning a gear blank with its shaft, from a solid piece of round stock. Procedures and precautions used when turning to close tolerances. The establishment of a reference point and its constant use are emphasized.

TWO WAY STREET (OWI)

332.3 8 minutes—sound 1

Gives an account of how lend-lease worked from its start up to the present.

U. S. NEWS REVIEW NO. 5 (OWI)

909 22 minutes—sound 2

This issue of the war news contains the following: Safety Styles for Women in Industry, Unmanned Machines Mean Unarmed Men, Our Children—A War Problem, 1000 Plane Raid—British Raid on Bremen, Army Air Corps Song.

URUGUAY (OIAA)

918.9 16 minutes—sound 2

A study of Uruguay which, in many ways, resembles the United States in its liberal, independent, and advanced social and political life. The relative ease, wealth, and contentment of its people are indicated as well as the agricultural and economic basis of the country's good fortune.

USING THE CLASSROOM FILM (EBF)

371.33 22 minutes—sound 3

Demonstrates an approved procedure for teaching with motion pictures. The film used for demonstration is Wheat Farmer.

VACUUM TUBE IN RADIO (EBF)

621.384 10 minutes—sound 3

Animated drawings clearly show the way in which vacuum tubes work. The three functions of the vacuum tube in radio are carefully explained; how it serves in amplifying current to operate the loudspeaker, how it is used as a rectifier in detection, and how it is used as an oscillator tube in the transmission station to produce the carrier wave.

Unit Value

VANISHING HERDS (USDA)

591.5 14 minutes—sound 1

A grandfather tells two children how the bison, elk and other game animals and birds have been nearly exterminated, and what Federal and other agencies are doing to restore them, particularly with reference to national forests. Contains shots of prehistoric animals and of the last heath hen, bison, deer, mountain sheep, elk, bears, and wild turkeys.

VELOCITY OF CHEMICAL REACTIONS (EBF)

541.3 10 minutes—sound 3

Describes, with photography and animation, the effect of the nature, concentration, and the temperature of reacting substances on the rate of chemical reactions. Practical examples with wood, aluminum, iron, and other substances are given to illustrate these phenomena. The dynamics of reversible reactions and of chemical equilibrium are shown by schematic drawings that give clear conceptions of rather obstruse processes.

VENEZUELA (OIAA)

918.7 10 minutes—sound 1

The capital city of Caracas and the port of La Guaira, sugar plantations, and colonial forts and trails.

VENEZUELA MOVES AHEAD (OIAA)

918.7 40 minutes—sound—color 4

An Analysis of Venezuela from an economic, historical, and geographic viewpoint. Excellent use is made of animated maps, and much attention is given to Venezuela's principal industry—oil. Interesting scenes show the unusual modern development of Caracas, Venezuela's capital city.

VERACRUZ (OIAA)

917.26 18 minutes—sound—color 3

We are conducted on a trip through Mexico's province of Veracruz. Varicolored flowers, odd native clothes and customs, and the colorful panorama of the quiet countryside make for a delightful film.

VETERANS AND THE LAND (USDA)

355.11 17 minutes—sound 2

Shows the veteran what to expect from farming—the drawbacks and the satisfactions—and gives practical advice to those thinking of becoming farmers.

VICTORY HARVEST (USDA)

631.1 22 minutes—sound 2

The picture tells the story of the farm labor shortage caused by the war, and how it was met during the crop season of 1944 through the vigorous and patriotic efforts of several million volunteers from our towns and cities. "The problem is still with us," warns Judge Marvin Jones, War Food Administrator, but with the help of these patriotic citizens, who are well paid for their work, the farmers will again be able to produce large crops.

VIGILANCE FOR VICTORY (USDA)

634.9 5 minutes—sound 1

This film emphasizes the necessity for conservation of our heritage of forests. Particular attention is given to the current necessity for preservation of wood to hasten victory.

Unit Value

VILLAGE SCHOOL (BIS)

379.42 12 minutes—sound 1

This film, beaming with human interest, humor, and pathos shows how the children of England are bearing up under the terrific strain. Should be shown to groups for its character-training value. Our students of education, both in-training and in-service can see themselves as the camera sees them and can better understand the philosophies of education of this country by studying the philosophies of others.

VIRGINIA—THE OLD DOMINION (EASTMAN)

917.55 15 minutes—silent 1

Depicts a region rich in geographic, commercial, and historic interest. Surveys "Tidewater Virginia" with its cities, land and sea products; "Piedmont Virginia"; the beautiful "Blue Ridge" country; the "fall line" cities and crops; and the "Greater Valley."

VISIT OF KING GEORGE VI AND QUEEN ELIZABETH (EBF)

973.9 10 minutes—sound 3

Complete coverage of this historic event from their departure from England until they leave the American Continent. Pomp and ceremony enroute. The glorious reception in both the Dominion of Canada and the United States.

VOLCANOES IN ACTION (EBF)

551.2 10 minutes—sound 3

Presents the history, causes, distribution, and effects of volcanic action. Animated drawings describe the formation of batholiths; dikes; sills; loccoliths; mineral deposits; cinder, composite, and lava cones; lava sheets; and volcanic eruptions, with special reference to Krakatoa. Actual photography illustrates the same phenomena. The destructive forces of volcanoes in eruption are shown. Sound effects enhance the dynamic appeal of the film.

VOYAGE TO RECOVERY (OWI)

355.12 10 minutes—sound 1

The Navy tells the deeply moving story of the complex treatment involved in caring for its wounded. The camera follows the wounded men to the operating room and then through the many therapeutic facilities of the hospital. Costly electrical therapy machines, hydrotherapy apparatus, massage, bicycle exercise and sequences of occupational therapy, and the part all these play in recovery is portrayed graphically. The film ends with the discharge sequence—the man going home, as nearly whole as medical skill and care can make him.

WAR IN EUROPE (C)

940.53 11 minutes—sound 1

This film has historical value in that it shows the invasion of Poland, declaration of war by Britain and France, and other war scenes.

WAR ON WHEELS (OWI)

358 22 minutes—sound 2

Directed principally at the men and women of the automotive industries to show them the combat performances of the vehicles they have built. What it took to get a mechanized convoy through in the North African campaign serves as an illustration.

Unit Value

WARNING, THE (GUT)

940.544 30 minutes—sound 3

The overwhelming reality of an air raid over a British city, and the destruction accompanying it. The film shows the concerted efforts of military and civilian personnel during the raid to protect life and property and, following it, to rescue victims and restore damaged sections.

WARTIME NUTRITION (OWI)

613.2 10 minutes—sound 1

Emphasizes the importance of using our limited wartime supply of food wisely. Eventual victory may depend upon what we eat.

WASHINGTON, THE NATIONAL CAPITAL (C)

917.53 10 minutes—sound 3

Shows Pennsylvania Avenue from the Capitol to the White House, State, Navy and War Departments, the Treasury, Bureau of Printing and Engraving, prominent monuments and other spots of interest.

WATCHTOWER FOR TOMORROW (OWI)

321.04 15 minutes—sound 1

This film brings to life the Dumbarton Oaks plan for an international security organization and shows how a third world war can be forestalled. The Dumbarton Oaks plan is explained in simple, everyday terms by an offscreen narrator. He traces the growth of the United Nations plan step by step from the Atlantic Charter and Moscow Conference to Bretton Woods and Dumbarton Oaks. Secretary of State Stettinius tells us that "It has fallen our lot—yours and mine—to live at one of the great crossroads of history—What we do this year of 1945 will decide whether all the sacrifice and sorrow of this war have been in vain, or whether we shall be able, at last to live together in a world free from war."

WATER BIRDS (EBF)

598.2 11 minutes—sound 3

Photographic sequences depict the physical characteristics, habits, environment, adaptivity and care of young of the egret, the mallard duck, the Canada Goose and the brown pelican. Shorter sequences depict selected facts about the lesser scaup and the flamingo, the winter and summer homes of the Canada goose and the principal migration route.

WATER—FRIEND OR ENEMY (OIAA)

628.1 10 minutes—sound—color 2

This film deals with the problem of water contamination. Effective treatment of the subject is achieved through animation in color by the Disney studios. While the subject deals primarily with rural problems, the film is a fascinating study and brings out the problem with forceful presentation.

WATER POWER (EBF)

621.312 10 minutes—sound 3

The concept of potential power from water is introduced by the water cycle which furnishes a never-ending source of power. It is shown how rapids and waterfalls, by use of this, were changed from hindrances to aids to man's progress. The body of the picture traces the development of water power, chiefly in the U. S. from the small mill of the early colonists to such modern projects as Niagara, Boulder Dam, and the Tennessee Valley. There is an

Unit Value

informative sequence on the transformation of kinetic energy of the waterfalls into potential energy through the hydro-electric plant. Concludes with a world-wide survey of potential water power.

WATUSSI OF AFRICA (EBF)

916.7 11 minutes—sound 3

An excellent film showing the daily life of the Watussi tribe of East-Central Africa.

WEALTH OF THE ANDES (OIAA)

918.5 20 minutes—sound—color 3

A trip to the Cerro de Pasco mining district deep in the Andes Mountains in Peru. Here the "Wealth of the Andes" in the form of copper and lead is mined. Here two of Peru's greatest natural resources are drawn from the earth to serve man. The trip is made on the now-famous Central Railway of Peru, the building of which was one of the greatest engineering feats of all time.

WEARING AWAY OF THE LAND (EBF)

551.3 10 minutes—sound 3

Several important processes which result in the wearing away of the land at one place and the building up at another are vividly shown in this film. Scenes taken all over the world show processes and formations which succinctly tell the story. How the land is affected by chemical decomposition of rocks, glaciers, wind and waves is presented. Scenes at Carlsbad Cavern illustrate the formation of caves, and animated diagrams and aerial views show how the coast line is changed by the waves of the ocean.

WEATHER (EBF)

551.5 10 minutes—sound 3

Explains the Polar Front weather theory and describes meteorological instruments and methods and cloud formations. Animated drawings, curves and maps are shown.

WE DISCOVER THE DICTIONARY (CORONET)

10 minutes—sound 3

Three students are assigned the task of writing a letter to a police sergeant. By the time the letter is finished they have learnt a great deal about dictionaries, including the use of the guide words, finding the spelling of words, definitions, reading diacritical marks, and that there are many kinds of dictionaries.

WEE ANNE AND THE SNOW MAN (CIN)

796.9 7 minutes—silent 1

Bobby and Wee Anne go to the mountains to play in the snow. They roll the snow into big balls to make a snow man, whom they dress up and give a funny nose. Then they have a snowball fight and a ride on a sled.

WEE ANNE GOES SAILING (CIN)

797.1 10 minutes—silent 1

The story of what Wee Anne does when she goes to the Yacht Harbor. She rows a boat; sees sail and motor boats and is taken for a sail on a Star sail boat. We see the sails being hoisted, lowered, furled and covered for the night.

Unit Value

WEE ANNE SEES THE INDIANS (CIN)

970.1 15 minutes—silent 1

Wee Anne watches the Indians separate corn, sees the outdoor ovens, and looks into a Kiva. Wee Anne is also seen with the Navajos at a real hogan on the Reservation. Sees an Indian blanket being woven, pottery being made and the way the Southwest Indians live. Filmed on the Indian Reservations.

WEE ANNE VISITS THE ZOO (CIN)

591.5 15 minutes—silent 1

Wee Anne visits the zoo and sees foxes, peacocks, penguins, zebras, bison, deer, porcupines, prairie dogs, camels, elephant, tapir, otter, bears, polar bears, seals, pelicans, tigers, ducks, birds, gorillas, orang-outang. Close up views of the animals.

WEE ANNE'S CHRISTMAS (CIN)

394 15 minutes—silent 1

The story of Wee Anne and her Cousin Michael's Christmas activities: shopping for toys, gifts for the poor, hanging up their stockings, Santa Claus coming down the chimney and putting out the toys, the joy of Christmas morning. Some of the religious significance as well as the fun of Christmas is suggested.

WEE ANNE'S DOG SANDY (CIN)

636.7 15 minutes—silent 1

A simple story of what Sandy does during the day. He gets out of bed in his nightgown, has a morning dip, plays tag with Wee Anne, is dressed up, taken for a ride in the doll buggy, listens to the toy phonograph, and says his prayers at night.

WEIGHT EVENTS (EBF)

796.4 11 minutes—sound 3

Demonstrations of the shot put, discus throw, hammer throw and javelin. Slow motion photography and repetition are used. The general poise of the body, the method of using the arm, and the leg action are clearly demonstrated for all throws. Two styles of form are given for the javelin throw and the discus sequence.

WE SAID WE'D COME BACK (OWI)

940.545 20 minutes—sound 2

The story of the Navy's fight in the Pacific. The assembly of the greatest sea power the world has ever seen is pictured; active combat shots of the latest ships, planes and weapons in action; and Admiral King reports on the enormous complexity and size of the fleet and the huge cost.

WESTERN FRONT (OWI)

951 21 minutes—sound 2

A picture of China's plight and heroic fight. The desperate needs of the Chinese people are stressed, as well as the advisability of America's holding the Chinese as friends.

WEST INDIES (EBF)

917.29 10 minutes—sound 3

Portrays the principal West Indies Islands. Shows strategic importance to the Western Hemisphere trade, economy, etc. Character of tropic islands. Recent modern trends are indicated.

WESTWARD MOVEMENT (EBF)

973 11 minutes—sound 3

Presents in dynamic animation on a heroic scale the westward

Unit Value

migration of peoples across the United States from the period of about 1790 to 1890. By the use of animation great masses of data and broad mountain top views of the greatest and most dramatic of all human migrations are presented.

WHAT IS FOUR (YOUNG AMERICA)

372.7 15 minutes—sound 4

This film is designed for beginning studies in number-work. The relationship of 4 to 1, 2, 3, 5, is studied from every aspect with the aid of blocks, sticks, etc.

WHAT'S HAPPENED TO SUGAR (OPA)

664.1 11 minutes—sound 1

Tells why sugar must be rationed for some time due to the cutting off of large supplies by the war, and the increased use of sugar for war materials.

WHEAT FARMER (EBF)

633.1 11 minutes—sound 3

Portrays the life of a wheat farmer and his family in a typical midwestern area. Preparing the soil, and planting winter wheat are shown, along with other farm activities, milking, cooking, and general repair work. 4-H Club activities, labor problems, modern combine harvesting, and home life are delineated. Transportation of the harvested wheat to the town elevator for shipment to the flour mill is treated. Reproduced conversations describe typical farm problems.

WHEN WORK IS DONE (OWI)

331.83 9 minutes—sound 1

Shows how the people of a typical town crowded with war workers provided amusement and recreation for the thousands of people who had come to that community to live and work.

WHICH WAY THIS TIME? (OPA)

332.4 10 minutes—sound 1

Effort to avoid disastrous inflation such as followed World War I. The film points out that serious inflation still threatens the economy of the United States, and asks the public not to pay over-ceiling rents and prices as a contribution toward the defeat of inflation. Animation throughout, but with no element of fantasy or cartoon quality to the animation.

WHITE FLOOD (UFL)

551.31 20 minutes—sound 3

A beautifully photographed, poetic study of glaciers. In the beginning the grandeur of the earth is suggested through some of the forces which affected its geologic history. Volcanic eruptions reveal the heat of the interior. Gradually the earth cools; its crust changes. Liquid rock is pushed up from depths as great as thirty miles, and poured over the surface. Surface elements change it again; rain and snow fall upon it; it is split apart by frost; floods roll over it; wind and sun beat upon it. A desert forms where there was life, life where there was a desert.

WHITE-FRINGED BEETLE (USDA)

632.7 20 minutes—sound 2

Shows the life and habits of this destructive pest which has come up from South America and is concentrated around the Gulf. Shows its power of damaging crops and the methods of control.

Unit Value

WINGED SCOURGE (OIAA)

632.77 10 minutes—sound—color 1

Shows the development of the Anopheles mosquito from the larva to full growth. At this point the film becomes one of general mosquito control with Walt Disney and his staff. The seven Dwarfs play an important part in the demonstration of the various methods of mosquito control. Good for malaria control.

WINGS OF YOUTH (NFB)

629.13 19 minutes—sound 2

Gives an insight into the gigantic Commonwealth Air Training Program of Canada. Scenes at the flying schools organized for youth give a clear picture of the individual training of their pilots.

WINGS OVER BRAZIL (OIAA)

918.1 15 minutes—sound 2

"Brazil has a predestination for aviation," wrote one historian. Here is a film that bears out the statement. A picturization of progress made by Brazil, especially during World War II, in the modern, advanced field of aviation. An illuminating and thought-provoking document.

WINGS UP (OWI)

629.13 22 minutes—sound 2

Explains the rigid training of candidates for officers in U. S. Army Air Forces. Produced at Miami Beach, and narrated by Captain Clark Gable.

WINNING FOOTBALL PLAYS OF 1938 (CIN)

796.33 12 minutes—sound 3

Winning plays in slow motion from the following games: Army vs. Navy; Cornell vs. Dartmouth; Pennsylvania vs. Columbia; Yale vs. Michigan; Notre Dame vs. Carnegie Tech; Duke vs. Pittsburgh; Notre Dame vs. Northwestern; Tulane vs. Mississippi; and Texas Christian vs. Carnegie Tech (Sugar Bowl).

WINNING YOUR WINGS (OWI)

629.13 18 minutes—sound 2

A bird's-eye view of how the United States Army Air Force is being built into the strongest and best trained in the world. Lt. James Stewart of the U. S. Army Air Corps speaks directly to the audience, explaining the work of the air force, the requirements for enlistment, and the benefits to be derived from the program.

WINSTON-SALEM (SO. PRO.)

917.56 18 minutes—sound—color 2

This is a description of the city, showing chiefly its business and industrial activity. There are scenes in tobacco, furniture, textile, and hosiery factories. Educational and recreational advantages are vividly portrayed.

WISE LAND USE PAYS (USDA)

631.4 18 minutes—sound 2

Shows many ways for conserving and improving land.

WIZARDS OF SVALOF (USDA)

580 19 minutes—sound 2

Shows what goes on at Svalof in Southern Sweden, world-famous institution for plant improvement. It is through this scientific re-

Unit Value

search and development that Sweden has risen to such heights in agricultural production.

WOOD FOR WAR (USDA)

674 8 minutes—sound—color 1

An effective plea for forest conservation so that there may be "wood for war and wood for peace."

WOODEN FACES OF TOTONICAPAN (OIAA)

917.28 9 minutes—sound—color 1

Guatemalan fiestas, including the breath-taking climax of Chichicastenango's famous eight-day celebration.

WOODWIND CHOIR (EBF)

788 11 minutes—sound 3

Begins with the third movement in Brahms' First Symphony and ends with the Scherzo from Mendelssohn's "Midsummer Night's Dream." The body of the film is taken up by demonstrations of the individual tone quality of the various instruments and gives pupils opportunity for studying playing techniques. Excerpts from Rossini's "William Tell" overture, Von Weber's overture "Der Freischutz," Beethoven's Third Symphony, Schumann's piano concerto, and the Second Movement of Brahms' Fourth Symphony.

WORLD AT WAR, THE (OWI)

940.53 45 minutes—sound 4

Pictures graphically and dramatically the history of a world at war—from the invasion of Manchuria on September 18, 1931, to the bombing of Pearl Harbor ten years later. This film is a powerful record of the events, foreshadowing Pearl Harbor and is a historical document of the years 1931-41.

WORLD OF PLENTY (BIS)

641 45 minutes—sound 4

The story of man and food—past, present, and future—is told by two men, a commentator and a heckler. The many facts of the problems—a secure, adequate and suitable supply of food for every man—are challengingly presented through the creative use of animated diagrams, pertinent pictorial material, trick optical effects and recorded declarations of world citizens and scientists.

WORK OF THE ATMOSPHERE (EBF)

551.3 10 minutes—sound 3

Shows the effect of the mechanical and chemical actions of the atmosphere on the earth's surface. Animation depicts the cutting process of windblown sand grains on granite. areas affected by dust storms, and the formation of soils. Magnified views reveal the structure of sand grains and feldspar. Other photograph provides examples of spalling, exfoliation, sand blasting, dunes, loess banks, and volcanic dust. The importance of the atmosphere to plant and animal life is shown.

WORK OF THE KIDNEYS (EBF)

612.4 10 minutes—sound 3

Cinematic devices are used to present a detailed exposition of the kidneys and their functions. First, an analogy is drawn between machines which use selective devices and the selective processes by which wastes are eliminated in the kidneys. An animated diagram is used to give an enlarged view of the kidneys, and to reveal the processes of transfer and filtration. Laboratory experi-

Unit Value

ments show the properties of the semi-permeable membranes which function in the kidneys to allow wastes to pass but restrict passage of food materials. Content analysis charts compare glomerular fluid to urine. Anesthetized animals are used to study the factors affecting rate of urine formation, including blood sugar content and external temperature. The function of the kidneys is compared to that of a gyroscope in that they maintain a balance between the blood and body tissue.

WORK OF RIVERS (EBF)

551.48 10 minutes—sound 3

Presents dramatically, yet simply, the erosion cycle of water on the earth's surface. The main story is introduced with a brief portrayal of the water cycle in nature. The main story is integrated by motion pictures, specially taken for this picture, presenting examples from many parts of the country. Models and animated drawings are employed to explain such special features as Niagara Falls, deltas, meanders, ox-bow lakes, rejuvenated rivers, lakes, water gaps and sand bars.

WORK OF RUNNING WATERS (EBF)

551.48 10 minutes—sound 3

This film displays and analyzes the activities of the most effective agent of erosion—running water. Models and scenes from all parts of the world show how running water wears away the land. Many picturesque results of erosion are analyzed. To illustrate stream deposits, there is included an unusually complete sequence on the formation of deltas and flood plains. This is splendidly illustrated by sand table models and aerial scenes of the Mississippi bottom lands.

WORST OF FARM DISASTERS (USDA)

631.3 7 minutes—sound 1

Explains that electricity on the farm reduces fire hazards. A fire on a farm is pictured. The commentator points out that if this farm had had electricity, the fire might never have started.

YELLOWSTONE NATIONAL PARK (EASTMAN-FORD)

917.87 12 minutes—silent or sound 1

The natural wonders of the oldest and largest national park in the United States, featuring the geysers, hot springs, and the magnificent canyon—"Old Faithful"—in all her glory.

YOU AND YOUR CHILD (USDA)

374 20 minutes—sound 1

Pictures of a number of activities, experiences, and techniques by which parents in rural communities may promote desirable child growth.

YOUNG URUGUAY (OIAA)

379.89 19 minutes—sound 2

How the young people of Uruguay live and play and go to school. Uruguay already has the highest degree of literacy in South America, and through this film we come to appreciate the progressive steps now being made in education in this smallest South American republic.

YOUR AMERICAN TRAGEDY (USDA)

634.9 8 minutes—sound 1

Asks briefly for extra care this year in the prevention of forest fires by the average American citizen.

Unit Value

YOUTH BUILDS A SYMPHONY (NAT. MUSIC CAMP)

785 25 minutes—sound—color 3

Portrays the National Music Camp at work and at play in its beautiful setting near Lake Michigan. The study of the Romantic Symphony by Howard Hanson is vividly portrayed in scenes of students at work in small instrumental groups, at individual practice, and in full orchestral study. Some of the famous musicians pictured include: Howard Hanson, Dr. Joseph Maddy, Percy Grainger, and Ferde Grofe. Classes in radio broadcasting and dancing are also seen.

YUCATAN (OIAA)

917.26 20 minutes—sound—color 3

An exciting and colorful travelogue to Mexico's eastern province, Yucatan. Superb musical background, and with glorious color photography, this film provides an experience never to be forgotten.

ZION NATIONAL PARK (FORD)

917.92 10 minutes—sound 1

Monoliths carved by rains and river, basking in semi-tropical climate, makes this park in southwestern Utah an ideal vacation ground. Aerial views of the park combined with the natural beauty of the rock formations make this picture very interesting.

LANTERN SLIDE SERVICE

One Individual Unit $ .70

Slides as well as other visual aids may be used under any of the plans listed in the front of this bulletin.

The renter is responsible for any slides broken while in use.

2x2 COLOR SLIDES

AMERICAN COUNCIL ON EDUCATION—OTHER AMERICAN REPUBLIC SERIES

Teacher's Manual Furnished with Each Set

Catalog Number	*Title of Slides*	*No. of Slides*	*Unit Value*
B1G1-78	Guatemala	81	1 unit
B1GP1-47	Hunting Unusual Plants in Guatemala	49	1 unit
B1C1-20	Ancient Mayon Culture at Copan	24	1 unit
B1C1-31	Cartagena—Historic Fortress City of Columbia	33	1 unit
B1IN1-33	Ancient Inca Culture of Peru	33	1 unit
B1T1-73	Transportation in Latin America	79	1 unit
B1H1-51	Housing in Latin America	56	1 unit
B1LAC1-46	Indian Costumes in Latin America	52	1 unit
B1MP1-78	Indian Markets in Latin America	52	1 unit
B2G1-83	South America—The Land	86	1 unit
B2CNGTM1-46	Mining in South America	48	1 unit
B2F1-87	Agriculture in South America	91	1 unit
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B2LI1-19	Indian Life in Lowlands of South America	22	1 unit
B2B1-44	Brazil Builds	46	1 unit
B2A1-31	Nation Life in an Amazon Village	33	1 unit
B2R1-24	Rubber in the Amazon Basin	26	1 unit
B2BC1-45	Indian Costumes of Bolivian Highlands	48	1 unit
B2W1-33	Weaving in the South American Highlands	41	1 unit
B3AR1-50	Valley of Mexico	47	1 unit
	1. Middle Culture Period up to 300 A.D.	1-8a	
	2. Teotihuacan—300 to 900 A.D.	9-20	

Catalog Number	*Title of Slides*	*No. of Slides*	*Unit Value*
	3. Tula—900 to 1200 A.D. 21-41		
B3AR1-47	Valley of Mexico	47	1 unit
	4. Xochicalco—Hill City 42-52		
	5. Aztec—12-1500 A.D. 52-87		
B3AR88-120	Western Mexico—Indian Culture	37	1 unit
B3AR121-172	Southeastern Mexico	62	1 unit
	1. Monte Alban and Mitla Culture 121-152a		
	2. Totonac and Olmez Art 153-172		
B3MY1-65	Maya Second Empire—Yucata	73	1 unit
	1. Chichen—Itza Culture 1-39		
	2. Uxmal Culture 40-65		
B3MP1-78	Contemporary Painting in Mexico	26	1 unit
B3MC1-79	Mexican Churches in Colonial Period	83	1 unit
B3CP1-24	Colonial Painting in Mexico	26	1 unit
B3MM1-69	Contemporary Mexican Murals	71	1 unit
B3PA1-35	Popular Arts in Mexico	37	1 unit

2x2 COLOR SLIDES

NATIONAL PARKS SERIES

Catalog Number		*Unit Value*
NP	National Parks, 36 slides	1

KEYSTONE GLASS LANTERN SLIDES

All slides here listed are 4 x 3¼ inches to be used in a regular stereopticon lantern.

BIOLOGY SERIES

Catalog Number		*Unit Value*
1B12	Microscopic Life and Cells Series I	1
2-3B24	Food Production and Life Process Series II and III	1
4-5B24	Plant Groups Series IV—Thallophytes Series V—Thallophytes and Bryophytes	1
6-7B24	Plant Groups Series VI—Pteridophytes Series VII—Spermotophytes	1
8-9B24	Animal Groups Series VIII—Protozoans Series IX—Lower Forms of Animal Life	1

Catalog Number	*Title of Slides*	*No. of Slides*	*Unit Value*
10-11B24	Animal Groups Series X—Arthropoda Series XI—Vertebrate Animals		1
12-15B48	Reproduction of Plants and Animals Series XII—Plants and Their Ways Series XIII—Plants and Their Ways Series XIV—Plants and Their Ways Series XV—Plants and Their Ways		1
16-17B24	Reproduction of Plants and Animals Series XVI—Animals and Their Ways Series XVII—Animals and Their Ways		1
18B12	The Web of Life Series XVIII		1
19B12	Behaviorism Series XIX		1
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GENERAL SCIENCE SERIES—Each Series consists of 20 Slides and a Teacher's Manual

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GEOGRAPHY SERIES—Each Series consists of 8 colored and 17 plain slides, a teacher's manual, and a colored map slide

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8G26	Southern Lands—Australia and Antarctica	1 unit
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15G26	Life in the Middle Atlantic States	1 unit
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17G26	From New York to Omaha on the Lincoln Highway	1 unit
18G26	From Omaha to San Francisco on the Lincoln Highway	1 unit
19G26	Scattered American Lands	1 unit

20G26	Our Neighbors in Eastern Canada	1 unit
21G26	Our Neighbors in Western and Northern Canada	1 unit
22G26	Our Mexican Neighbors	1 unit
23G26	Living in the Caribbean Lands	1 unit
24G26	The East-Coast Countries of South America	1 unit
25G26	The West-Coast Countries of South America	1 unit
26G26	Great Britain	1 unit
27G26	Italy	1 unit
28G26	The Iberian Peninsula	1 unit
29G26	France	1 unit
30G26	Three Progressive Small Nations—The Netherlands, Belgium and Denmark	1 unit
31G26	Scandinavia	1 unit
32G26	Finland and the Baltic States	1 unit

HEALTH SERIES—(Approximately 35% of these slides are hand-painted)

1H25	Posture	1 unit
2H25	Skeletal and Muscular System	1 unit
3H21	Circulation and Respiration	1 unit
4H25	Digestive System	1 unit
5H18	Special Senses	1 unit
6H26	Teeth	1 unit

PHYSICS SERIES—Each series consists of 12 slides and Teacher's Manual

1-2Ph24	Pressure in Liquids Series I and II	1 unit
3-4Ph24	Pressure in Air Series III and IV	1 unit
5Ph12	Molecular Forces and Motions Series V	1 unit
6-7Ph24	Force and Motion Series VI and VII	1 unit
8-10Ph36	Work and Mechanical Energy Series VIII, IX, X	1 unit
11Ph12	Work and Heat Energy (Thermometry-Expansion Coefficients) Series XI	1 unit
12-14Ph36	Transference of Heat—Change of State Series XII, XIII, XIV	1 unit
15-16Ph24	Nature and Transmission of Sound Series XV and XVI	1 unit
17-18Ph24	Properties of Musical Sounds Series XVII and XVIII	1 unit
19-21Ph36	Nature and Transmission of Light Series XIX, XX, XXI	1 unit
22-25Ph48	Image Formation Series XXII, XXIII, XXIV, XXV	1 unit
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28Ph12	Magnetism Series XXVIII	1 unit
29Ph12	Static Electricity Series XXIX	1 unit
30-32Ph36	Electricity in Motion XXX, XXXI, XXXII	1 unit
33-35Ph36	Electricity in Motion Series XXXIII, XXXIV, XXXV	1 unit
36-37Ph24	Induced Currents Series XXXVI, XXXVII	1 unit
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PRIMARY SERIES—Each series consists of 8 colored slides, 17 plain slides and a teacher's manual

1Pr25	Community Helpers	1 unit
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3Pr25	Indians of the Southwest	1 unit
4Pr25	The Family	1 unit
5Pr25	The Farmer	1 unit
6Pr25	Primitive Indians	1 unit
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1S30	Safety on the Highway (10 colored slides, 20 plain slides, and a teacher's manual)	1 unit
2S30	Safety in the Home (5 colored slides, 25 plain slides, and a teacher's manual)	1 unit

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1T25	Boats	1 unit
2T25	Bridges	1 unit
3T25	Roads	1 unit
4T25	Iron Horse	1 unit
5T25	Air	1 unit
6T25	Vehicles	1 unit
7T25	Ships	1 unit

CLASSROOM RECORDINGS

All of the transcriptions listed can be played on a regular phonograph. (78 revolutions per minute.)

Transcriptions as well as other audio-visual aids may be used under any of the special plans described in the front of this bulletin, or rented separately.

MERCURY TEXT RECORDS

Featuring Orson Welles

Merchant of Venice (12 records)	3 units
Twelfth Night (10 records)	3 units
Julius Caesar (11 records)	3 units
Macbeth (9 records)	3 units

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Abraham Lincoln	2 units
Benedict Arnold	2 units
Oliver Wendell Holmes, Poet	2 units
Robert E. Lee	2 units
The Constitution of the United States	2 units
Walter Reed	2 units
Young Andy Jackson	2 units

GENERAL RECORDINGS

Drama of Everyday Words (1 record)	1 unit
American Speech—Introduction, Flat A, Circumflex A—Long Italian A (1 record)	1 unit
American Speech—Short Italian A—Long A—Broad O Long O—Flat O—OU and OO (1 record)	1 unit
American Speech—Long U—OO, LLE—Soft R—Vowels—ARY Suffix Sentences (1 record)	1 unit
The Star of Our Flag—The American Eagle (1 record)	1 unit

Patrick Henry (2 records) ..... 1 unit
What is the Atom (3 records) ..... 2 unit
Owl and the Pussy Cat, Annabelle Lee, Ole Swimming Hole (1 record) ..... 1 unit
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Authenticated dramatizations of salient episodes in the development of democratic institutions.

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BATTING (CORONET)

796.357—10 minutes—sound—color 5

This color film covers, in slow motion shots, the important techniques of baseball-batting from the selection of the bat, stance, grip, and follow-through strike.

FILM COMMUNIQUE—No. 12 (OWI)

940.544—18 minutes—sound 2

1. Weapons of War. Race Hatred and Superiority of German blood used as a powerful weapon.
2. Great Floor. Flying in China.
3. Sky Guys. Air Force Film.
4. Coming Home.

ANNE LEARNS ABOUT OCEAN LINERS (CIN)

387—20 minutes—silent 1

Anne is shown over the S. S. Lurline by the Chief Officer. She watches an automobile being loaded into the hold of the ship, and the hatches being closed; the bags and trunks being hoisted on board; and learns something about how passengers live on shipboard. She sees the charting of the boat's course, the wireless room, the life belts, etc.

BACKDOOR TO JAPAN (OWI)

940.542 12 minutes—sound 2

This is the story of the taking of Myitkyina Airfield under the direction of General Stilwell.

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JAN 30 '47

UNIVERSITY OF NORTH CAROLINA
EXTENSION BULLETIN

VOL. XXVI OCTOBER, 1946 No. 3

Second Series

LECTURES IN THE HUMANITIES

1945-1946

ALFRED DE VIGNY, ROMANTIC POET
By WILLIAM MORTON DEY

ARCHAEOLOGICAL EXCAVATIONS AND SOME IMPORTANT DISCOVERIES
By J. PENROSE HARLAND

WILLIAM SHAKESPEARE, THINKER
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Published six times a year, July, September, October, November, January, and March, by the University of North Carolina Press. Entered as second-class matter October 19, 1921, Chapel Hill, N. C.

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FOREWORD

When an annual series of Lectures in the Humanities was begun on the campus of the University, it was intended that they be representative in many ways. They were intended to represent the various areas of the rich fields encompassed by humane living. They were intended to represent the departments in a university which took humane living for their provinces. They were intended to represent the talent that resided on the campus but that was seldom given a hearing outside the classroom except on platforms remote from Chapel Hill. This second series of three lectures continues in admirable fashion the aims of breadth and representation which lay behind the Lectures in the Humanities from the first. New areas have been added to the Latin, Elizabethan, and American ones of the first series. New men, not new to the campus but new within the experience of the audiences, have been heard gladly and with profit. The Division of the Humanities has anew been about its business of widening man's cultural horizons and deepening man's understanding of life.

Like its predecessor, this pamphlet contains lectures that are diverse but that are also a series regularly scheduled and held within a framework that is as broad as humane life itself. They mark no anniversary and are rather timeless than timely. If they speak for an occasion, it is the constantly generated occasion when man takes time to satisfy the eternal longing within him to know more. This should be the perpetually renewed occasion on a university campus, for it is this insatiable thirst for knowing that founds universities and always inspires scholars such as those invited to deliver these lectures. But the occasion for learning is not confined to a campus, the scholar is not outside of life, and the lecture has a place far from the classroom. So these three lectures, like the first three, have been put into pamphlet form that they may have a wider circulation, that they may circulate through society. To each lecture has been added a list of readings that will help the reader who can approach each topic with more time than was afforded the hearers within an hour. Thus enriched, the series is appropriately issued through the University Extension Division, an agency of the University which has for its campus an area outside the grounds in Chapel Hill to the boundaries of the state and, in the spirit of learning itself, beyond the boundaries of the state or any boundaries.

RAYMOND ADAMS

PAUL GREEN

J. PENROSE HARLAND

W. L. WILEY

GLEN HAYDON, *Chairman,*

Committee on Lectures
The Division of the Humanities.

William Morton Dey is Kenan Professor of Romance Languages in the University of North Carolina. After receiving the A.B. and M.A. degrees at the University of Virginia, he was granted an M.A. and a Ph.D. degree by Harvard. Professor Dey, one of the senior members of the faculty, has been head of the Department of Romance Languages for many years and was made Chairman of the Division of the Humanities when it was organized in 1935, relinquishing the position only after he had established the Division firmly and had given it a tradition on which to build. He has been a member of the Editorial Board of *Studies in Philology* since the inception of that board in 1910 and has written excellent histories of that journal and the famous Philological Club that sponsored both the journal and the valuable series of scholarly studies in language and literature presented in the form of papers each year through more than half a century. Doctor Dey is the author of *Pessimism and Optimism of Alfred de Vigny*. The lecture printed here was delivered December 4, 1945, in Gerrard Hall.

ALFRED DE VIGNY, ROMANTIC POET

By WILLIAM MORTON DEY

In French literature of the nineteenth century, there are two noteworthy figures who have not received from American critics and students of literature the attention and recognition which they deserve. French critical opinion, on the other hand, has consistently been concerned with both of them. I should feel very badly, indeed, if any one of my serious students could truthfully say that he or she had not heard a great deal about the work of both of these authors. Since the time when their works fell into the "public domain"—which occurs in France fifty years after an author's death—there has hardly been a reputable publishing house in Paris which has not brought out an edition of their works. One of them is a novelist, who used many pseudonyms, but who finally decided to adopt as his *nom de plume* the name of a little German village which figured briefly in the news of one of our recent campaigns in Germany—namely, Stendhal. His real name was Henri Beyle, and his two great novels are "Le Rouge et le Noir" ("The Red and the Black") and "La Chartreuse de Parme" ("The Chartreuse of Parma"). Both of these novels have been translated into English, and either one or the other is usually included—and sometimes both are included—in any chosen list of the great novels of the world's literature. The other of these two figures is primarily a poet, whom some good judges consider the greatest French poet of the nineteenth century, Count Alfred de Vigny, and it is concerning him and his work, particularly his poetic work, that I shall speak this evening.

What are the events and emotions which made of Alfred de Vigny a poet of sadness and despair? Vigny was born March 27, 1797, at Loches, a little town in the château country, not far from the city of Tours, of an aristocratic family ruined by the French Revolution. It was a bad epoch in which to be born with a noble name, and Alfred de Vigny, having had three brothers who died before his birth, was born marked by the sadness of the times. On account of the death of their first three children at Loches, M. and Mme de Vigny determined to move to Paris when Alfred was a year and a half old. He spent his early years either at Paris or in the province of Beauce, in a family château, Le Tronchet, near Etampes.

The *Journal d'un poète*, Vigny's diary which was first published in an incomplete form several years after his death, is a valuable document which throws a good deal of light upon the development of his character. In the *Journal* he writes at length concerning his education, in a section under the year 1847 entitled *Fragments de mémoires*:

> Jusqu'à l'âge d'être écolier, j'eus à Paris toute sorte de maîtres que ma mère choisit bien et dirigea mieux encore. Elle avait pour moi la grave sévérité d'un père, et l'a toujours conservée, tandis que mon père ne me montra jamais qu'une maternelle tendresse. . . . La vitesse avec laquelle je saisissais tout ce qu'on entassait dans ma mémoire d'histoire, de géographie, d'éléments de la langue, des mathématiques, du dessin, de la musique, de tous les principes d'arts et de sciences, fit que le temps le plus malheureux de ma vie fut celui du collège, parce que devançant mes compagnons dans les études ils étaient humiliés de se voir inférieurs à un plus jeune et me prenaient en haine. Cela me rendit sombre, triste et défiant.[1]

The college to which Vigny refers was the well-known Pension Hix, faubourg

[1] Alfred de Vigny, *Journal d'un poète*, Nouvelle Edition revue et augmentée par Fernand Baldensperger (London: The Scholartis Press, 1928), p. 219.

Saint-Honoré, in which he was a *demi-pensionnaire* at the age of eight years. He continues, in the *Journal,* with a detailed account of how his fellow-students persecuted him. Sometimes they would say to him, striking him in one of his vulnerable points, because he was proud of his nobility: "Tu as un *de* à ton nom; es-tu noble?" He would answer: "Oui, je le suis"[2]—and they would strike him. And he adds: "Je me sentais d'une race maudite, et cela me rendit sombre et pensif."[3] They would take the bread of his lunch and would give him back half of it only on condition that he would consent to write the theme or the exercise of one of the larger boys. This sort of treatment which he received at the hands of his comrades made him decide deliberately to neglect his studies—*de travailler mal*—preferring the punishment meted out to him by his teachers and hoping to be taken out of college. This hope was fulfilled, and Vigny was able to study at home in a library which, he said, was a joy to him. "Je ne vous ai parlé de ces détails, qui sont d'une petitesse à faire pitié, que pour vous donner un exemple de plus de ces chagrins d'enfance qui laissent dans l'homme une teinte de sauvagerie difficile à effacer durant le reste de sa vie."[4] Vigny's experience at the Pension Hix made a lasting impression upon him, the quotations given from the *Journal* dating from 1847 when he was fifty years old. I think that this could be called the first deception of his life: he was an aristocrat, and this fact made him feel that he was separated from the masses. Furthermore, he tells us that his real literary education was that which he gave himself, when, freed from teachers, he was at liberty to follow the rapid flight of his insatiable imagination.

The next great disappointment which came to Alfred de Vigny was his military career. In spite of his noble birth and the fidelity of his family to the monarchy, he was dazzled by the victories of Napoleon, as were all the other young men of his generation. He writes:

> J'appartiens à cette génération née avec le siècle, qui, nourrie de bulletins par l'Empereur, avait toujours devant les yeux une épée nue, et vint la prendre au moment même où la France la remettait dans le fourreau des Bourbons;[5] [and] Vers la fin de l'Empire, je fus un lycéen distrait. La guerre était debout dans le lycée, le tambour étouffait à mes oreilles la voix des maîtres, et la voix mystérieuse des livres ne nous parlait qu'un langage froid et pédantesque. Les logarithmes et les tropes n'étaient à nos yeux que des degrés pour monter à l'étoile de la Légion d'honneur, la plus belle étoile des cieux pour des enfants.[6]

Tired of his perpetual meditation, he felt the necessity of entering into action, and his mother and father gave their consent to his preparation for the École polytechnique. He was on the point of presenting himself for his entrance examinations (in 1814) when the abdication of Napoleon to Fontainebleau and then to Elba permitted him to enter the army immediately. He was admitted into the royal guard with the rank of second lieutenant of the *gendarmes rouges.* The only opportunity which Vigny had of engaging in a campaign was when he accompanied Louis XVIII in his flight from Paris at the beginning of the Hundred Days (March, 1815).

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[2] *Ibid.,* p. 219.
[3] *Ibid.,* p. 220.
[4] *Ibid.,* p. 221.
[5] Alfred de Vigny, *Servitude et grandeur militaires,* éd. Baldensperger (Paris: Conard, 1914), p. 5.
[6] *Ibid.,* pp. 9-10.

> J'étais seul, j'étais à cheval, j'avais un bon manteau blanc, un habit rouge, un casque noir, des pistolets et un grand sabre; il pleuvait à verse depuis quatre jours et quatre nuits de marche, et je me souviens que je chantais *Joconde* à pleine voix. J'étais si jeune.[7]

But disillusion and disappointment were not long in coming. Vigny was interned at Amiens during the Hundred Days; in 1816 the *compagnies rouges* were disbanded, and he was transferred to a regiment of infantry which was in garrison first at Versailles, then at Vincennes, and later at Courbevoie. He did not have the excitement, the activity, the action for which he was longing, but rather the monotonous tasks of the officer in time of peace. His health and his meditative nature prevented him from enjoying the usual distractions which are associated with the life of young officers; rather, he would listen to the stories of the old soldiers, and in this way he collected much of the material which he used later in the *Servitude et grandeur militaires*.[8] In 1822 Vigny was promoted to a senior lieutenancy when his regiment was in garrison at Courbevoie, and as the French intervention in Spain the next year seemed to offer him some hope of realizing his dreams of military glory, he succeeded in being transferred with the rank of captain to one of the regiments which formed a part of the expedition. His regiment started from Strasbourg, traversed France, finally reached Bordeaux, and went into the Pyrenees for the winter. The companies were divided among several small towns in those mountains, especially Pau and Oloron. All these changes did not interrupt Vigny's work; he wrote several poems at Courbevoie, and at Strasbourg he conceived the idea of a poem which he first called *Satan* and later *Eloa*, started it before he left Strasbourg, finished it at Bordeaux, and sent it to Victor Hugo at Paris to be published "in case the bullets do not respect the poet." But the bullets did not have a chance a him, because his regiment remained in garrison in the Pyrenees without ever receiving the command to cross the frontier. Completely disillusioned, Vigny resigned from the army and established himself in Paris. Too much importance cannot be attached to the fact that this meant an ardent vocation thwarted. Vigny sought glory through the career that was natural to noblemen—namely, that of arms. He had been unhappy at school and in the lycée, through a feeling of pride, but probably the deepest source of his sadness is to be found in the disillusionment of his military career.

It was in the Pyrenees, at Pau, that the third great deception in Vigny's life began—namely, the courtship which led to his marriage. His desire to marry Delphine Gay, a well-known "muse romantique," did not meet with the approval of his mother, and he gave up the idea of this marriage in deference to her wishes. Madame de Vigny offered no opposition, however, to her son's marrying a young English girl, Miss Lydia Bunbury, who was spending the winter at Pau for her health and who was reputedly quite wealthy. The marriage took place in 1825. This union did not have, as far as the material situation of the poet was concerned, all the results which his mother doubtless expected:[9] Mr. Bunbury took no interest in his

[7] *Ibid.*, p. 25.
[8] Labaste et Nicolle, *Alfred de Vigny, Oeuvres Choisies* (Paris: Hatier, 1930), pp. 7-8.
[9] *Ibid.*, pp. 87-88.

French son-in-law, and disinherited his daughter for having married him. Furthermore, Miss Lydia's delicate health and the constant attention which she required soon became a great burden and a source of anxiety to Vigny. She was cured of one illness only to contract another, and soon after they took up their residence in Paris Vigny's rôle became for the most part that of nurse. He lavished attention upon his wife, and also upon his mother, to whom he was absolutely devoted; surely, as far as care of his wife is concerned, the charge of neglect could never be brought against Vigny. Yet he was lacking the sympathy which he hoped to find in his wife; not finding it at home, he went in search of it elsewhere. There were many women in the life of Alfred de Vigny, but not many serious love affairs. The most important and the most disastrous was his liaison with the actress Marie Dorval, who was apparently lacking in refinement and delicacy of feeling. "Her father and mother, who belonged to a troupe of strolling players, had forgotten to get married until she was born, when the error was finally rectified."[10] But she was an actress of great talent, and Vigny became infatuated with her in seeing her play at the Théâtre de la Porte Saint-Martin. "Night after night he would steal away from his quiet apartment to enjoy a debauch of sentiment"[11] at that theatre. It is not my intention to linger over the details of this liaison. Suffice it to say that, though Marie Dorval may have incarnated—in part, at least—the ideal of Vigny, she was also in opposition to that ideal, and it did not take Vigny very long to find it out. She soon wearied of the adoration which was heaped upon her: it might have satisfied her vanity if Vigny's reputation had been greater.[12] One might wonder how a man of Vigny's temperament could fall in love with an actress of the boulevards reputed to be noisy and vulgar and who was not even pretty;[13] and, as a matter of fact, their congeniality was not very apparent. Marie Dorval was much more interested in her career than she was in Vigny. The affair with him was just another love-episode in her life, and it was not long before she was unfaithful to him, but she was not going to let him go until he succeeded in getting her into the Comédie-Française. The story of her success in his drama, *Chatterton*, at that theatre is well known. At that time (1835) her unfaithfulness was so notorious that it was evident even to Vigny. Scenes of tumult followed one another; the liaison lasted, however, somewhat longer, but it was definitely over by 1837.

Disappointed in his hopes of fortune and domestic happiness, Vigny was destined to be disappointed also in his ambitions as a writer. As early as 1819 or 1820 he had become a part of the movement which ended in the formation of the romantic school. Émile Deschamps, whom he had known for a long time, had made him acquainted with Victor Hugo. He and Hugo became intimate enough to call each other by their first names, and they wrote to each other in the most affectionate terms. When Victor Hugo was married in 1822, Vigny was one of his attendants. They had, shortly be-

[10] Arnold Whitridge, *Alfred de Vigny* (New York: Oxford University Press, 1933), p. 105.
[11] *Ibid.*, p. 110.
[12] P. Barrière, *Alfred de Vigny, Essai d'interprétation littéraire et morale* (Paris: Figuière, n.d.), pp. 98 and 100.
[13] Arnold Whitridge, *op. cit.*, p. 111.

fore, published their first volumes of verse—Hugo, the *Odes* and Vigny, the *Poèmes.* Their names were mentioned together by the critics and their other early works appeared in the same years: in 1824, Hugo's *Nouvelles Odes* and Vigny's *Eloa;* in 1826, Hugo's *Odes et ballades* and Vigny's *Poèmes antiques et modernes.* And then Hugo began to outdistance Vigny with a series of works, from 1827 to 1831—from the famous *Cromwell* to *Notre Dame de Paris*—which caused him to be acclaimed as the leader of the romanticists. Vigny had secretly coveted that rôle. His disappointment was bitter, and as Estève says, "Emulation was changed to rivalry, rivalry to jealousy, jealousy to ill-will."[14] Hugo also became embittered when Vigny in 1829 refused to accede to his request to delay the rehearsals of *Le More de Venise,* so that *Hernani,* which had been accepted by the Comédie-Française, could go into rehearsal immediately. That is why *Hernani* was first played in February, 1830, instead of in the fall of 1829. The Revolution of 1830 and political disagreements brought about the complete rupture of their relations.

After 1837 Vigny went into retirement, dividing his time between Paris and his family estate, Maine-Giraud, in the Department of La Charente. As the critic Sainte-Beuve expressed it, he retired into his "ivory tower." It isn't at all certain that he found peace of heart there, and he acknowledged sometimes that his "sacred solitude" was "bitter solitude." He observed an almost absolute silence for twenty-five years—from this time until his death in 1863—writing, or at least publishing, only six poems.

Vigny's entire verse is contained in one volume today, but he published, in order, *Poèmes,* 1822; *Eloa,* 1824; *Poèmes antiques et modernes,* 1826 (with augmented editions of 1829 and 1837); posthumously, *Les Destinées,* 1864. With the exception of the historical novel, *Cinq-Mars,* which appeared in 1826, Vigny's principal prose works were published from 1832 to 1837, the best known of which are *Stello* (1832), *Servitude et grandeur militaires* (1835), and the drama *Chatterton* (1835). These latter works express the poet's ideas concerning the treatment accorded to those whom he considered the two great martyrs of society, the poet and the soldier. It is not my purpose to discuss these works this evening, but I wish to call attention to the fact that, in *Stello* which shows the martyrdom of the poet, Vigny fixes his choice upon three poets whom very different types of government had sacrificed. The monarchy of Louis XV let Gilbert die in the hospital; the English bourgeoisie of the 18th century forgot Chatterton, who suffered from hunger in an attic room; the revolutionary democracy of France sent André Chénier to the guillotine. Vigny makes one of his characters say that, of these three forms of government, the first fears poets, the second disdains them as useless, the third hates them because they consider themselves superior beings.

The events of Vigny's life, as we have recounted them, suffice to show that the main causes of his sadness and despair are solitude, disillusion, and disappointment, to which should be added the silence of God (Vigny constantly refers to the "silence de la Divinité") and the coldness and indiffer-

[14] E. Estève, *Alfred de Vigny, sa pensée et son art* (Paris: Garnier Frères. 1923). p. 15.

ence of nature (Vigny did not have the feeling for nature which the other romanticists had). These ideas are expressed, in symbolic form, in his poems. For example, *Moïse* expresses the solitude, the loneliness of genius; the man of genius, because he is above his kind, must be doomed to isolation, and so to suffering.

> Hélas! je suis, Seigneur, puissant et solitaire,
> Laissez-moi m'endormir du sommeil de la terre![15]

La Colère de Samson expresses the treachery of Delilah (Marie Dorval), the betrayal of man's strength.

> Une lutte éternelle en tout temps, en tout lieu,
> Se livre sur la terre, en présence de Dieu,
> Entre la bonté d'Homme et la ruse de Femme,
> Car la Femme est un être impur de corps et d'âme.
> . . . . . .
> Et, plus ou moins, la Femme est toujours Dalila.[16]

It is to be noted that this poem, in which he gave vent to his bitterness over the deceit of Marie Dorval, expresses a purely temporary state of mind. Usually Vigny idealized woman and made her the symbol of beauty.

In some of the early poems of Vigny, such as *Moïse*, *Le Cor* symbolizing Roland's heroic death, and many others, we see one of his interesting creations—namely, the "poème," which he defines in his preface of 1837 in the following words: "The only merit which has never been disputed to these compositions is that they anticipated in France all those of this genre, in which a philosophical thought is set forth in an epic or dramatic form." This is what Émile Deschamps meant by saying that Alfred de Vigny revealed himself in the *Poème*, that "he knew how to be great without being diffuse."[17] In other words, Vigny was an innovator: he realized and stated the fact, himself, and certainly the critics and historians have added their agreement.

Although Vigny repeatedly expressed the idea that it is necessary for us to resign ourselves to our fate because there is no help from Heaven or anywhere else, he also gave expression to his hope and faith in the grandeur of the thinker (of the poet) and to his sympathy and love for humanity; and in his solitude of Maine-Giraud he began his preparation of what he called "l'oeuvre d'avenir" ("the work of the future"). The sorrow caused by the death of his mother in 1837 marked a turning point in his life and a softening of his ideas. It was then that he seemed to regain his faith and trust in God which he had evidently lost for a time. Doubtless Vigny recalled the *Conseils* which his mother formulated for him at the time of his departure for Versailles in 1815. That manuscript is preserved, and one of its paragraphs is entitled: "Concerning the existence of God and the immortality of the soul." You may easily imagine what kind of advice Mme de Vigny gives her son concerning these subjects.

The change mentioned in Vigny's ideas is seen especially in the posthumous volume, *Les Destinées*, which was published with the sub-title "Poèmes philosophiques" in January, 1864, four months after the poet's

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[15] *Moïse*, vv. 69-70.
[16] *La Colère de Samson*, vv. 35-38 and v. 60.
[17] E. Deschamps. *La Préface des études françaises et étrangères* (Paris: Les Presses Françaises, 1923), p. 13.

death. It contains eleven poems, six of which had already appeared in the *Revue des Deux-Mondes* (1843-1854)—the ones to which I have referred previously. These poems express in majestic verse the various stages of Vigny's thought: despair, resignation, hope, and belief in the triumph of the "Idea" and of the "Pure Spirit." I am going to consider several of them briefly, in order to make this evolution clear to you.

Le Mont des Oliviers is the story of the agony in the Garden, with some distortion of the biblical account to suit Vigny's purpose. Christ addresses God (it is Vigny, and not Christ, who speaks), saying what he had come upon earth to do—to bring certainty and hope; but he is leaving evil and doubt. He asks that His book be not closed "before the last word."[18] God is silent, and "In the wood He heard steps, and then He saw the torch of Judas roaming."[19] The poem ends with a strophe, entitled "Le Silence," which was added in 1862, almost twenty years after the rest of the poem was written. It borders on blasphemy, but it is interesting as exemplifying the sort of crisis through which Vigny passed from time to time—a temporary return to his former feeling.

LE SILENCE

S'il est vrai qu'au Jardin sacré des Écritures,
Le Fils de l'homme ait dit ce qu'on voit rapporté;
Muet, aveugle et sourd au cri des créatures,
Si le Ciel nous laissa comme un monde avorté,
Le juste opposera le dédain à l'absence,
Et ne répondra plus que par un froid silence
Au silence éternel de la Divinité.

Vigny represents Jesus as a man in despair whom God abandons. Far from being an atheist, as some critics have insisted, Alfred de Vigny was obsessed with the idea of God; only, he found fault with Him for not showing Himself, and for not answering him (Vigny) directly and personally. Of course, he believed in God, since he believed in his divine mission, as expressed in the *credo* of the poet, of Stello, that is to say, of Alfred de Vigny:

> I believe in myself, because I feel in the bottom of my heart a secret, invisible and indefinable power, similar to a presentiment of the future and a revelation of the mysterious causes of the present time. I believe in myself, because there is in nature no beauty, no grandeur, no harmony which doesn't cause in me a prophetic thrill, which doesn't carry deep emotion in me, and doesn't moisten my eyes with tears divine and inexplicable. I believe firmly in an ineffable vocation which is given me, and I believe in it on account of the unlimited pity which men, my companions in misery, inspire in me, and also on account of the desire which I feel of stretching out my hand to them and raising them constantly by words of commiseration and love.[20]

La Mort du loup is Vigny's supreme expression of the idea of resignation. The poem relates a simple hunting episode at the end of which the wolf, "Without deigning to know how he perished, closing his large eyes, dies without uttering a cry";[21] and from this incident Vigny deduces a lesson of stoicism:

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[18] *Le Mont des Oliviers*, II, v. 2.
[19] *Ibid.*, III, vv. 11-12.
[20] Alfred de Vigny, *Stello*, éd. Baldensperger (Paris: Conard, 1925), p. 23.
[21] *La Mort du loup*, vv. 59-60.

Hélas! ai-je pensé, malgré ce grand nom d'Hommes,
Que j'ai honte de nous, débiles que nous sommes!
Comment on doit quitter la vie et tous ses maux,
C'est vous qui le savez, sublimes animaux!
A voir ce que l'on fut sur terre et ce qu'on laisse,
Seul le silence est grand; tout le reste est faiblesse.
—Ah! je t'ai bien compris, sauvage voyageur,
Et ton dernier regard m'est allé jusqu'au coeur!
Il disait: "Si tu peux, fais que ton âme arrive,
A force de rester studieuse et pensive,
Jusqu'à ce haut degré de stoïque fierté
Où, naissant dans les bois, j'ai tout d'abord monté.
Gémir, pleurer, prier, est également lâche.
Fais énergiquement ta longue et lourde tâche
Dans la voie où le sort a voulu t'appeler,
Puis, après, comme moi, souffre et meurs sans parler.[22]

We have to admit that this is quite an exaggeration. If the Wolf were only a *symbol* of stoicism in the face of death, it would be perfect. But Vigny says more than that: the Wolf *teaches* us how to die, the animal *gives us* a lesson.

La Maison du berger, dedicated to Éva, the idealized woman, expresses in a striking way the evolution of the poet's thought and feeling. In its tripartite division, which was a favorite form of Vigny's (cf. *Stello* and *Servitude et grandeur militaires*), he celebrates solitude, revery, poetry, and love. In the first part, Vigny explains the symbol: the Shepherd's House, contrasted with railroads, symbolizes solitude as opposed to society and revery as opposed to science; it is now a solitude which is conducive to silent meditation, and the peace which it brings softens all his bitterness. The idea of revery leads the poet naturally to the subject of poetry, and in the second part he contrasts poetry with politics. This gives Vigny an opportunity of expressing his disapproval of those poets, like Lamartine and Victor Hugo, who turned to politics. Concerning poetry he writes:

Il faut, pour voir de loin les peuples qui cheminent,
Que le berger t'enchâsse au toit de sa maison.[23]

That is to say, the Maison du berger, symbolizing solitude and revery, is lighted by poetry. These two verses, which are very important, form the connection between the first two parts of the poem. The theme of the third part is love and, we should add, pity. The poet comes back to Éva whom he has led into the Shepherd's House. Éva symbolizes the love which offers to the poet consolation against society—and against nature, which is still worse.[24] The hymn to woman in this third part differs enormously from the malediction which he hurled against her in the *Colère de Samson*:

Éva, j'aimerai tout dans les choses créées,
Je les contemplerai dans ton regard rêveur
Qui partout répandra ses flammes colorées,
Son repos gracieux, sa magique saveur;
Sur mon coeur déchiré viens poser ta main pure,

[22] *Ibid.*, vv. 73-88.
[23] *La Maison du berger*, II, strophe 11.

Ne me laisse jamais seul avec la nature,
Car je la connais trop pour n'en pas avoir peur.[25]

The poet is then addressed by nature, which says:

Je suis l'impassible théâtre
Que ne peut remuer le pied de ses acteurs
. . . . . .
Je n'entends ni vos cris ni vos soupirs; à peine
Je sens passer sur moi la comédie humaine
Qui cherche en vain au ciel ses muets spectateurs.

Je roule avec dédain, sans voir et sans entendre,
A côté des fourmis les populations;
Je ne distingue pas leur terrier de leur cendre,
J'ignore en les portant les noms des nations.
On me dit une mère, et je suis une tombe.
Mon hiver prend vos morts comme son hécatombe,
Mon printemps ne sent pas vos adorations.[26]

And the poet replies in part:

Vivez, froide Nature, et revivez sans cesse
Sous nos pieds, sur nos fronts, puisque c'est votre loi;
Vivez, et dédaignez, si vous êtes déesse,
L'Homme, humble passager, qui dut vous être un roi;
Plue que tout votre règne et que ses splendeurs vaines
J'aime la majesté des souffrances humaines;
Vous ne recevrez pas un cri d'amour de moi.[27]

In the *Journal*[28] this item occurs under the year 1844:

Poèmes Philosophiques.—
J'aime la majesté des souffrances humaines.

Ce vers est le sens de tous mes Poèmes Philosophiques. L'esprit d'humanité; l'amour entier de l'humanité et de l'amélioration de ses destinées.

The symbol which Vigny uses in the *Bouteille à la mer* is expressed in these words in the *Journal*[29] under date of 1842:

Un livre est une bouteille jetée en pleine mer, sur laquelle il faut coller cette étiquette: *attrape qui peut.* Il ne faut désirer la popularité que dans la postérité et non dans le temps présent.

A vessel is caught in a storm off the extremity of the South American coast and is about to sink. The captain knows it; he resigns himself and prays.

Son sacrifice est fait; mais il faut que la terre
Recueille du travail le pieux monument.
C'est le journal savant, le calcul solitaire,
Plus rare que la perle et que le diamant;
C'est la carte des flots faite dans la tempête,
La carte de l'écueil qui va briser sa tête:
Aux voyageurs futurs sublime testament.[30]

The captain, at the moment of death, places this will in a sealed bottle and abandons it to the waves. Will it reach shore? It floats and rolls, buffeted here and there, and finally one day a fisherman on the coast of France

[24] René Canat, *Alfred de Vigny, Morceaux choisis* (Paris: Didier, 1914), p. 517.
[25] *La Maison du berger,* III, strophe 8.
[26] *Ibid.,* III, strophes 9 and 10.
[27] *Ibid.,* III, strophe 14.
[28] *Journal d'un poéte,* p. 194.
[29] *Ibid.,* p. 178.
[30] *La Bouteille à la mer,* V.

catches it in his nets. He does not dare open it, but takes it to a savant to find out what "this black and mysterious elixir" is:

> Quel est cet élixir? Pêcheur, c'est la science,
> C'est l'élixir divin que boivent les esprits,
> Trésor de la pensée et de l'expérience;
> Et si tes lourds filets, ô pêcheur, avaient pris
> L'or qui toujours serpente aux veines du Mexique,
> Les diamants de l'Inde et les perles d'Afrique,
> Ton labeur de ce jour aurait en moins de prix.[31]

The whole country is moved, the captain who disappeared at sea is honored.

> Une gloire de plus luit dans la nation.[32]

And the poet cries out:

> Jetons l'oeuvre à la mer, la mer des multitudes:
> —Dieu la prendra du doigt pour la conduire au port.[33]

Vigny expresses, then, his faith in the destiny of the "Idea": That one surely has not lost his life who cast his bottle into the sea. He knew that his work would reach shore and he felt that not one word falls in vain from the lips of a great poet.

Finally, the *Esprit pur* was written six months before Vigny's death. It was published for the first time in *Les Destinées*, and it appears to be the literary will of the poet. Comparing his life with that of his ancestors, whose nobility he certainly exaggerates, Vigny flatters himself with a legitimate pride for having surpassed them all, having made illustrious a name which had been transmitted to him without glory.[34]

> C'est en vain que d'eux tous le sang m'a fait descendre;
> Si j'écris leur histoire, ils descendront de moi.[35]
>
> . . . . . .
>
> Seul et dernier anneau de deux chaînes brisées,
> Je reste. Et je soutiens encor dans les hauteurs,
> Parmi les maîtres purs de nos savants musées,
> L'Idéal du poète et des graves penseurs.
> J'éprouve sa durée en vingt ans de silence,
> Et toujours, d'âge en âge, encor je vois la France
> Contempler mes tableaux et leur jeter des fleurs.
>
> Jeune postérité d'un vivant qui vous aime!
> Mes traits dans vos regards ne sont pas effacés;
> Je peux en ce miroir *me connaître moi-même*,
> Juge toujours nouveau de mes travaux passés!
> Flots d'amis renaissants! Puissent mes destinées
> Vous amener à moi, de dix en dix années,
> Attentifs à mon oeuvre, et pour moi c'est assez![36]

And so Vigny ends with praise of the value of the "Idea" and of works of the mind. He reaffirms the lofty mission of the poet and derives pleasure from the fact that France continues to enjoy his works, hoping that this latest volume, *Les Destinées*, will bring him many new friends.[37]

In conclusion, I would have you note that Alfred de Vigny is the first representative of a philosophical poetry in France. He is rightly called the

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[31] *Ibid.*, XXII.
[32] *Ibid.*, XXIII, v. 2.
[33] *Ibid.*, XXVI, vv. 6-7.
[34] Labaste et Nicolle, *op. cit.*, p. 680.
[35] *L'Esprit pur*, II, vv. 6-7.
[36] *Ibid.*, IX and X.
[37] Labaste et Nicolle, *op. cit.*, p. 681.

intellectual among the romanticists. His poetry is quite different from that of his contemporaries, in that it is more impersonal in expresion, even if it springs in part from the circumstances of his inner and outer life. In other words, he does not indulge in the direct personal confession or complaint. It is a poetry of ideas expressed in language of a remarkable elevation and dignity.

READING LIST

The following books and articles may be found helpful in a study of Alfred de Vigny:

Aicard, Jean, *Alfred de Vigny.* (Paris: Flammarion, 1914)

Describes Vigny as a precursor and innovator, and discusses his ideas concerning the soldier and the poet. In French.

Clarke, S. H., *A Substitute Religion: The Source of Vigny's Optimism.* Studies in Philology, XXXIV, no. 3, July, 1937, 497-502.

A discussion of Vigny's religion of Honor and religion of the Ideal.

Dey, W. M., *The Pessimism and Optimism of Alfred de Vigny.* Studies in Philology, XXXIII, no. 3, July, 1936, 405-16.

The pessimism of Vigny has been commented upon and emphasized by Vigny scholars and critics. This article attempts to show that there were many traits of optimism developed in the character of Vigny and that those traits appear clearly in his work.

Estève, Edmond, *Alfred de Vigny, sa pensée et son art.* (Paris: Garnier Frères, 1923)

A penetrating study of Vigny's religious ideas, his stoicism, his literary doctrine, etc. In French.

Nitze, W. A., and E. P. Dargan, *A History of French Literature from the Earliest Times to the Present.* (Revised Edition; New York: Henry Holt and Co., 1927)

Book VI (Romanticism) gives a good survey of the romantic movement and its representatives. There are references to Vigny's poetry, dramas, and novels.

Oeuvres Complètes d'Alfred de Vigny. (Paris: Louis Conard, 1914-1935). 8 vols.

This is the best edition of Vigny's works and contains excellent notes by Fernand Baldensperger. In French.

Whitridge, Arnold, *Alfred de Vigny.* (New York: Oxford University Press, 1933)

Best account in English of Vigny and his work.

Wright, C. H. C., *The Background of Modern French Literature.* (Boston: Ginn and Company, 1926)

An excellent guide book for the understanding of modern French writers and of the civilization to which they belong. The various references to Alfred de Vigny and his work are noted in the "Index of Names."

———, *A History of French Literature.* (New York: Oxford University Press, 1912)

Part V (The Nineteenth Century) contains excellent chapters on the

trends of thought in the first half of the century, on the essential elements of romanticism, and on the romantic poets.

The following text-books contain good summaries of Vigny's ideas, and give in French eight or ten of his best-known poems, with explanatory notes in English:

Galland, Joseph S., and Roger Cros, *Nineteenth Century French Verse.* (New York and London: The Century Co., 1931)

Grant, Elliott M., *French Poetry of the Nineteenth Century.* (New York: The Macmillan Company, 1932)

Henning, George Neely, *Representative French Lyrics of the Nineteenth Century.* (Revised edition; Boston: Ginn and Company, 1935)

J. Penrose Harland is Professor of Archaeology in the University of North Carolina. After graduation from Princeton he studied at the University at Bonn and at the American School, Athens, Greece, before returning to Princeton for his Ph.D. degree. He has been a Fellow of the Archaeological Institute and a Fellow on the Guggenheim Foundation with experience in excavations at Zygouries, Korinth, and Mykenai. In 1927 he had charge of the excavating of Tsoungiza at Nemea. He has studied collections in the leading museums of twelve countries in Europe and also in Egypt, Jerusalem, and Constantinople. He has published *Prehistoric Aigina* and *The Peloponesos in the Bronze Age* and has contributed articles to various journals, particularly *The American Journal of Archaeology*, of which he is Contributing Editor. He is Recorder of the Archaeological Institute of America and a Lecturer of this organization. The lecture printed here, delivered in Gerrard Hall February 26, 1946, was illustrated with numerous lantern slides. In this printed edition, the latter part of the lecture, requiring illustrations, has necessarily been omitted.

ARCHAEOLOGICAL EXCAVATIONS AND SOME IMPORTANT DISCOVERIES

By J. Penrose Harland

Archaeology may be defined as the study of the remains of antiquity as known to us through other than literary sources, or as that one of the historical sciences which treats of the material remains of the past. When concerned with the fine arts of ancient times, archaeology is virtually Ancient Art, so far as the college curriculum is concerned.

But archaeology takes into account all the activities of man and is actually the study of the products of man's handicraft. Thus the simplest chipped flint comes into the domain of archaeology as well as some great statue or elaborate building. Early man is the subject of study for the anthropologist but as soon as man began to make implements, tools, or weapons, shelter or shed, then he becomes of interest to the archaeologist. The crudest stone artifact and the most primitive decoration becomes an object for study by the archaeologist, and the plainest fragment of pottery also deserves a place in the study of Archaeology.

The chief branches of Archaeology are Architecture; Sculpture; Painting; Pottery and Vase-Painting; Gold and Silver Ornaments and Jewelry; Metallurgy which includes the working of metals and the manufacture of metal implements, weapons, and multifarious objects; Bronzes (statuettes); Terracotta figurines, Engraved Gems and Seals, and other objects—in fact, anything or everything made by man.

Before commenting on the various branches, one might mention allied fields of study which are either branches of archaeology or are subjects about which the archaeologist must be informed either by study or by consultation with experts in the field in question. Topography, the study of place or location, and Epigraphy, the study of inscriptions, may be designated as branches of Archaeology. It is true that inscriptions may be called a literary source but the discovery of writing on stone, bronze, clay, and other materials is usually due to the work of the archaeologist and the first reading or decipherment is often performed by him. Even the purely literary papyri and parchment may appear in the reports of an excavation by virtue of the fact that they were unearthed by the archaeologist. However, the latter records of the past come under the heading of literary, and so non-archaeological material. And the decipherment and study of inscriptions have often been accomplished by scholars who have never been near the locality where the inscriptions were found. One has only to think of the decipherment of Egyptian hieroglyphs and Mesopotamian cuneiform script to realize the important contribution of linguistic scholars in attaining the translations.

The archaeologist cannot be expected to be sufficiently versed in the fields of geology, chemistry, and palaeobotany, but he must be able to consult with scholars in those and allied fields. It is the geologist who ultimately localizes the source of lapis lazuli—which has been found in quantities in Ur and Egypt—in the Pamir Mountains. The chemist has suggested that

gold found in a very old sceptre, found in Egypt, may have come from Transylvania. The palaeobotanist recognizes the species of a plant or flower, imprinted in clay, painted on a vase or wall, or sculptured. The minute study of various kinds of marble, represented by statues executed by Hellenic sculptors, may reveal the provenance of these marbles and be of aid in the ascription of various works to particular schools or localities.

A large and well-financed archaeological expedition may have a trained geologist or chemist on the staff. Usually, however, the director of an excavation must be content with consultation with the required expert after the campaign has been concluded.

To return to the main branches of Archaeology, one may say that Architecture is, in a sense, the most important. Certainly it is the oldest of the arts. Second only to getting food, man's primary activity has been the providing of shelter for himself and family against the cold or heat or the elements. It has been called the mother of the arts for most of the arts have grown up, as it were, under the wing of architecture. Certainly it is the most conspicuous of the arts. For the archaeologist, any construction by man, be it ever so crude or humble, constitutes architecture. The authority on Fine Arts may include under Architecture only those buildings which have the super-added element of beauty or attempt at artistic decoration. Tombs, temples, palaces, dwelling houses and buildings for secular use form the subjects of study in this field. In the Ancient World, different countries have produced special types of buildings. In Egypt, one's interest is chiefly in the tombs and temples, while in Mesopotamia the Sumerians, Babylonians, and Assyrians in turn produced temples and palaces as their most important building—if we except the early Sumerian tombs. In Persia the palace and throne-hall received most attention. The Palestinians' chief building was the temple, from the time of Solomon on. Of course, the great Temple of Jahweh, built by Solomon, was largely the work of the Phoenicians rather than of the true Palestinian. In the Aegean Bronze Age, especially from ca. 2000 B. C. till 1200 B. C., the palace represents the chief architectural product, the mainland palace being surrounded with great fortification walls after ca. 1400 B. C.

In Classical Hellas (or Greece), the palace of the Bronze Age chieftain or king is superseded by the temple of the deity as the chef d'oeuvre of the Hellenic people in the field of Architecture. The Romans, unlike all the previous peoples, did not specialize on a few types but gave their attention to many kinds of buildings, the temple being only one of many types of construction.

Sculpture, the art of the making, moulding, carving, or casting of images, was one of the major arts in the Ancient World, particularly in Greece where it reached a height never surpassed even in our day. This form of art, which includes relief-sculpture as well as statues, was practically nonexistent among the peoples of Palestine. What images were made there, were for the most part figurines or statuettes of clay.

Painting, because of its perishable character, does not play much of a part in the work of the field-archaeologist. Of course, Egypt is an exception, where the numerous well-paintings in tombs provide such a mass of

information about the art and civilization of that country. To judge by literary references, painting must have reached its height in Greece, where frescoes, painting in tempera, and encaustic work flourished between the years 460 and 323 B. C.

Of course, the allied arts of vase-painting and mosaic work play an important part in the activities of the archaeologist in the field of Hellenic and Graeco-Roman art.

Pottery is one of the most important branches of Archaeology, especially from the point of view of the excavator. Aside from the fact that the vases may be works of art in themselves by reason of their shapes or decoration—this is particularly true of Hellenic vases—pottery is of great value for the information it gives about chronology and trade-relations and the movements of peoples. Even the simplest, undecorated potsherd may be of importance.

Pottery is virtually indestructible. The pot may be broken but the sherds (pieces of pottery) will survive the centuries. And the sherds will usually be found where they were dropped. One can hardly imagine a man gathering up the pieces of a broken jar and carrying them to a distant hill to deceive future archaeologists and to lead them to dig at this distant site. Of course, there are cases where pieces of one vase have been found scattered about an area. The famous François Vase, a Black-figured Krater or mixing-bowl which was made in Athens ca. 560 B. C., was reconstructed from sherds found in two Etruscan tombs. And the writer once found a rather large sherd about a hundred feet away from the rest of the vase. Possibly some boy had skimmed it through the air—and this boy must have lived at least four thousand years ago.

This introduces the chronological value of the potsherd to the excavator. Just as today, styles in pottery changed from time to time, and by the study of the context with which the pottery is found and by comparisons with datable objects from other countries, chiefly the synchronisms with Egypt, one may arrive at a relative chronology, in some cases even an absolute chronology, for certain styles of pottery. This results, of course, in the dating of the structure or the objects which are associated in the stratum with the pottery in question. A single, seemingly unimportant potsherd, may give us the approximate date of a palace.

A case in point is the Gray Minyan ware which is found at many sites in Greece. This fine, polished gray ware is found in conjunction with the Polychrome ware of Krete, which in turn has been found in the levels of the XIIth Dynasty in Egypt. Astronomical data and the study of the so-called Sothic Cycle enable Egyptologists to date this dynasty about 1991-1788 B. C. Hence one may say that Gray Minyan Ware was in vogue in Greece in the period ca. 2000-1800 B. C. Then the layer of ashes, found at many sites below this "Gray Minyan" stratum, and its underlying and hence earlier level of civilization must be dated earlier than ca. 2000 B. C. Thus, to pass over other evidence, one may arrive at the year 2000 B. C. as the approximate date of the arrival of the first peoples of Hellenic or Greek

stock in the southern part of the Balkan Peninsula. Similarly other synchronisms with Egypt make possible the dating of other strata and their periods in history.

When the young king of Egypt, Amenhotep IV, instituted his famous—infamous, the Egyptian priests would have said—religious revolution and declared the Egyptian pantheon and accepted religion as false and largely a matter of superstition, he changed, not only his name, but also his capital. To avoid all mention of the very name of the chief deity, Amen, he changed his name to Akhenaten—Aten the solar disk he considered the only god—and to get away from the temples and monuments of Amen at Thebes, he moved his capital down the Nile to a site called today Tell el-Amarna. Here he ruled—if it may be called ruling—approximately seventeen years, ca. 1377-1360. Soon after his death, the site was abandoned, after Tut-ankh-Amen was forced to return to Thebes and to the accepted religion in which Amen (and his priests) played the leading role.

Now at Tell el-Amarna has been found a certain type of vase of a distinctive shape, called the "stirrup-vase" (or false-necked amphora). This vase is one of the characteristic forms of a fairly well defined stratum in Greece. Since these vases were found imported to and used in Tell el-Amarna in the reign of Akhenaten, between 1380 and 1360, we may say that the stirrup-vase dates the period in which it was in vogue in Greece to the fourteenth century. Thus the last period of the Bronze Age may be dated with the aid of pottery from 1400 B. C. on. Other ceramic evidence gives us the date, ca. 1150 B. C., as the end of the Bronze Age in Greece and the Aegean Basin.

Many instances could be given of the importance of pottery for the archaeologist in other periods, in other lands. For example, the finding of certain types of Hellenic pottery in Sicily and Italy throws light on the time of Hellenic or Greek colonization of these regions and, incidentally, on the probable date of the introduction of the Greek alphabet into Italy.

Sometimes the other branches of Archaeology—Jewelry and Ornaments, Metallurgy, Bronzes, Terracottas, Gems, Seals, and Coins—are grouped under the term, The Minor Arts. Of course, this generalization is unwise in some cases because of the great importance which may be attached to certain finds in certain areas. The wealth of gold, yielded by the tombs of Egypt (especially of Queen Hetep-heres the mother of Khufu, and of Tut-ankh-Amen), by the Royal Tombs at Ur, by the Shaft Graves at Mykenai—all this wealth and artistry cannot fairly be dismissed as "minor art." The study of metal work and its ramifications in different localities is of great historical value. Bronzes and Terracottas, though often works of art in themselves, are often of greater importance for the light they throw on lost works of art, as is so well known by the student of Greek sculpture. The value of the engraved gems and particularly of the seals and seal-impressions for the students of both history and art transcends their value as individual artistic productions. As for Coins, apart from their intrinsic artistic merit, a book might easily be written on the importance of coinage for the study of trade-relations, colonization, and political history of states.

Similarly, much of interest may be adduced to show the value of Topography, Epigraphy, and other studies to the archaeologist and historian.

These so-called Minor Arts are, therefore, "minor" as a rule only as regards size. They do not bulk as large as the creations in the fields of Architecture, Sculpture, and Painting, and are not found in quantities comparable to the thousands of pieces of Pottery which come to light in many an excavation.

HOW CITIES BECOME BURIED

The question is often asked, Why does one have to dig up an ancient city, or How is it that cities become buried? The answer often lies in the kind of building material used in the construction of the city or, as in most cases, in building the successive settlements on the site. There are some towns and buildings which, because they were built of stone or some other imperishable material, have always remained above ground. Even so, there is usually a rise in the ground-level due to the accumulation of rubbish or of old material from replaced buildings. One can see this process going on in modern cities. However, continuous occupation of a town built of stone tends to keep the ground-level close to the original level.

But the ancient site usually has to be excavated to some extent. Sometimes wind-blown sand may cover the ruins of a settlement. In fact, intact houses may be buried under the sands blown from the surrounding or adjacent desert. Leonard Woolley, the excavator of Ur, Karchemish, and other sites, reports an example of the latter case. On returning to a site to resume excavations, he found that their dig headquarters (used as living quarters, work-rooms, etc.) had been completely covered by sand, and that, too, after an absence of little more than a half-year. The traveler in Egypt and southern Palestine can see how the sand is encroaching on the cultivable fields and even threatening to engulf houses. Mesopotamian sites especially suffer from this wind-blown sand.

However, in most lands and even in Mesopotamia the rise in the habitation level and actual burial of the ruins of towns may be ascribed to the kind of building material in general use. That was sun-dried brick, sometimes called mud-brick. This is virtually what is called adobe in our American South West and California. It is still used in Greece and in the Near East—and doubtless in many other parts of the world. The clay—sometimes the "mud"—is packed into a rectangular mould, which is just a square or oblong frame without bottom, with a horizontal handle attached. The size varies in different localities and in different periods. In Babylonia the brick measured about 20 x 20 inches in one period and later about 12 x 12 x 3 inches. In Greece, various dimensions are encountered. At one site, in houses dating between 2500 and 2000 B. C., the writer found the average brick measured approximately 15 x 12 x 4 inches. The modern brick comes in different sizes but on an average will measure 4 x 8 x 2¼ inches. These are kiln-baked or baked bricks.

The clay might be well mixed with a little chopped straw to serve as a binding medium and produce a more lasting brick. Incidentally, the passage in Exodus (5:7-19) is often misunderstood or misinterpreted. One may

hear it stated that one of the hardships suffered by the now captive Israelites in Egypt was that they had to *make bricks without straw*, as though it was more difficult to make a brick with clay alone. On the contrary, it is easier to make such a brick but such a brick will not hold up as well as one with a binding medium. The point of the story is that the Hebrews had to supply both the clay and the straw—as is clearly stated in Exodus—whereas hitherto the straw had been provided by the Egyptian foreman.

Of course, burnt or kiln-baked brick, the kind with which we are familiar today, was known and used by the Sumerians and others in the early Third Millenium B. C. However, the usual building material was sun-dried brick and it formed the core of the walls of the structures which were faced with the baked brick.

The sun-dried brick, then, is just clay mixed with a few bits of straw or in some cases with bits of broken up pottery; often it seems as if only clay went into the making of these bricks. After the clay was put into the frame and the top smoothed off, the frame was lifted off and the brick allowed to dry in the sun. One may see today in Greece, Egypt, Palestine, Mesopotamia—and doubtless in other lands—rows of such bricks, covering many square yards, drying in the sun. When the brick has become dry, it may be lifted up and put into a wall. It can be handled but will break in pieces if dropped and its edges may easily be crumbled or knocked off by contact with a hard object.

But the sun-dried brick forms good building material and, so long as it is protected from rain and ground dampness, it will last a long time. The bricks may be set in a "mortar" made of liquid clay or, if dampened or set when slightly damp, the bricks will be well bonded together. Naturally walls made of such material must be thick and strengthened at intervals by vertical and horizontal tie-beams of wood. The walls of the *megaron* or palace in Troy II (dated before 2300 B. C.) are nearly five feet in thickness and often the walls of smaller houses average two feet in thickness. Then, too, the walls of this clay- or mud-brick must be kept from being undermined by the dampness in the ground and so are set upon a stone base which may be from one to two feet in height. And, since the edges of the bricks at the wall-ends might be damaged by persons or things knocking against them, the wall-ends were sheathed by planks of wood, thus giving rise to the *anta* or enlarged end of a wall. The roof of these early buildings was regularly of wood, except in Mesopotamia where the arch of brick was developed.

Such then was the construction of the typical house in ancient times—not to mention modern times. The house would have a floor of beaten or tamped earth, a wall-base of stone (unquarried and at most roughly hewn stones set in a clay mortar), and a roof of wood. But the main building material was sun-dried brick. That even Greek temples of the early part of the Classical period were built in this manner is evidenced by the remains of the Temple of Hera at Olympia. Here the walls were of sun-dried brick—fortunately, for the clay from the disintegrated walls served to preserve for us the famous statue of Hermes with the infant Dionysos. This

statue by Praxiteles is the only work of one of the great masters which has survived from antiquity and which can reasonably be assigned to a great sculptor.

Let us imagine a settlement made up of such sun-dried brick houses. It stands on a low, natural mound or hill and near some spring or stream. Let us trace the possible history of such a site and this would be facilitated by such sketches as appeared on the slides which served to illustrate this lecture. As the houses vary in size, both as to number of rooms and to the expanse of each room, the house-walls will vary in width and height. On the floor will be a storage jar or two, serving as bins for food as well as a water container. Other vases and pots will be on the floor, as well as different utensils, tools, weapons, and ornaments, too.

Let us suppose that the wooden roof catches fire, either from the fire of the hearth in the house or as a result of an attacking enemy. The roof and some of the tie-beams, reinforcing the wall, will be burned at least partially. If it is an invasion of hostile people which has occasioned this destruction, the site will be abandoned for a while at least. The sun-dried brick walls are now exposed to the elements and the first rain will transform the tops of the walls into mud which will run down and pile up at the base of the walls. The next rain will continue this process and so on, until soon the site will be covered by numerous ridges or humps of clay. The number of little mounds, their height and extent, will, of course, vary with the size of the houses and house-walls in this settlement.

In time, the new people will come back to this ruined settlement or, as it now appears, to this mound with the irregular hillocks scattered upon its surface. The invaders will probably realize that this mound, with the nearby stream, is a good site to inhabit. So they will proceed to level off these hummocks and irregular rows of humps and prepare a level floor for their houses. A floor of beaten earth will be made within the stone substructure for the walls of the house. Again walls of sun-dried brick, reinforced with tie-beams of wood will be erected, and these walls will support a roof of wood. Sometimes these second builders will encounter a previous wall when digging their foundation for the new walls and may possibly use stones from the older walls or even base their stone-substructures upon the remains of the earlier stone wall-bases which they have chanced upon. But for the most part, these second settlers will be oblivious of the remains of the earlier civilization, which lie in the stratum below their habitation. Strewn on the earlier, and now débris-filled floor, are vases and other objects. A vase protected by the wall against which it stands or by a near-by storage jar, may remain entire. Between the two floor-levels may be found a layer of ash if the earlier settlement was destroyed by fire.

To continue the history of this site, we may imagine that these second settlers are attacked by another wave of invaders. Or, possibly in time, need will occasion the tearing down of their houses in order to build larger or better and stronger dwelling places. Or the site may be destroyed by an accidental conflagration. And again the same process will follow. The sun-dried brick walls, damaged in the conflagration or deliberately torn down

to make way for a new building, will in their turn be pulled down and the crumbled clay will be levelled off. To be sure, valuable objects and necessary vases will not intentionally be left in the earth, but some pots will escape recovery or will have been buried by the falling walls or débris, especially if there has been a fire. At any rate, no care will be taken to sweep up the broken vases and so the potsherds remain in the stratum of the period in which they had been used.

Over this second settlement rises a third settlement which is similarly built of sun-dried brick. Of course, it sometimes happens that only part of a site was, or had to be, rebuilt and so there may be more changes of floor-level in one part of the site than in another. But the process goes on, settlement succeeding settlement, but usually each one is represented by remains in the form of a floor, or walls, or vases or other objects. Sometimes the fire may burn hard some of the sun-dried bricks and thus at several sites some sun-dried bricks have been preserved. As previously noted, the different strata vary in thicknesses or depth according to the amount of débris coming from the ruined walls.

This process of building, destruction, and rebuilding was illustrated in the lecture by sketches on lantern slides, which showed cross-sections of the successive house-levels with various kinds of pottery and objects on the floors. Incidentally, these sketches were based on actual evidence obtained by the writer in the excavations of the Bronze Age sites at Zygouries and Nemea. The sequence from the Early Bronze Age houses (ca. 2500-2000 B. C.) to the Middle Bronze Age level (ca. 2000-1400 B. C.) was illustrated. A layer of ash between these two strata was evidenced at both these and other sites. Incidentally, in the lower level we found hand-made pottery while above the layer of ash wheel-made pottery appeared. At least three different building-levels (and sub-periods) were distinguished in the Early Bronze Age stratum with the aid of pottery and other finds, and at least four main sub-periods in the Middle Bronze Age stratum. The Late Bronze Age (ca. 1400-1150 B. C.) was also represented at both of these sites and at least three sub-periods could be distinguished on stylistic and stratigraphic grounds.

At some sites, town has succeeded town through centuries, even millenia, until the present day surface may be from seventy to even one hundred feet above the level of the original mound on which the original settlers first built their rude huts. For instance, at Megiddo in Palestine the deposit from human occupation amounts to over seventy feet. A few inches or several feet may separate one habitation level from the next one above it. Length of time, type of buildings, and amount of surviving débris largely determine the thickness of each stratum.

Thus it is that city is built upon city. Possibly it would be better to say that city is built upon the ruins of city. And thus by the illustrations one may answer the question of a little girl who, when told that there were nine cities at Troy, built one upon the other, asked "How do the people in the lowest city get any air?"

HOW DOES ONE KNOW WHERE TO DIG?

This question is also often asked and it, too, cannot be answered simply. There are many factors which go into the consideration of where should one dig, and still more as to where one may dig.

Some sites and monuments have always remained above ground. Athens has been continuously inhabited for probably six thousand years. And the Parthenon with its gleaming white Pentelic marble for nearly twenty-four hundred years has been an ever-inspiring cynosure, despite Christian and Turkish alterations, Venetian bombardment, and the *strafing* by bullets from the British—or, to be less scholarly but more popular, from the Greek Leftists. So obviously one would excavate on and around the Akropolis. Literary and topographical evidence led to the American excavations in the Agora or Market Place, to the investigations conducted by the German Archaeological Institute in the great cemetery outside the Dipylon Gate in the northwest arc of the wall around Athens.

The location of ancient Korinth was given by the few columns of the Temple of Apollo, which had been preserved by reason of their inclusion in Turkish houses. Here the American School has excavated over a period of about a half century. One of the chief sources for the study of the topography of Greece is the work of Pausanias, who ca. 160 A. D. traveled through Hellas and reported what he saw in his *Description of Hellas.* He mentioned the Lions Gate at Mykenai and this famed monument of the Late Bronze Age (ca. 1400 B. C.) had remained intact above ground. Here then was the entrance to the akropolis, the alleged citadel of Agamemnon. Here Schliemann came in one of the intervals away from Troy and resolved to investigate the capital of the chieftain who had led the expedition against the Troy which he was excavating, as he thought. Fortunately Schliemann misread Pausanias and dug within or behind the Lions Gate and discovered the famed Shaft Graves with their great treasure of gold. He showed to the world that Homer was correct in applying the epithet "Rich-in-gold" to Mykenai.

A consideration of the association of Asine with other sites in the *Iliad* and of its mention by Pausanias led the Swedish expedition to select a likely spot on the south coast of the Argolid. The excavations here, conducted by Axel Persson—and participated in by the Crown Prince of Sweden—led to the discovery of the site of Asine, not to mention the numerous important finds here.

Often chance plays a part in locating an ancient site. The modern inhabitants of Old Korinth—thought to be the site of Ancient Korinth—dug wells to obtain water and often came upon an abundant supply. One day a man dropped his bucket in the well and, equipped with a lantern, went down the ladder which he had let down and rested on rock. He came up in a hurry and reported to Mr. Bert Hodge Hill, Director of the American School in Athens, that he had seen a *thousand columns.* Mr. Hill, knowing the modern Greek, subtracted 997 and actually did find three columns which ultimately proved to belong to the façade of the Fountain of Peirene, the center of life in Ancient Korinth. This site had become buried to a depth

of about thirty feet by soil washed down from the higher ground to the south of the Agora. Examples of the part played by chance in the discovery of sites, buildings, or statues, and other objects, may easily be multiplied.

But before a site is dug, there is often one very simple criterion which is taken into consideration, namely, the presence or absence of the lowly potsherd. This is particularly true of Bronze Age sites and other sites of habitation. And this applies to other lands as well. Not every site is marked by a Lions Gate or a Parthenon or by stone remains extant above ground. Great settlements such as Megiddo or Beth-shan in Palestine were first examined for the presence of sherds. In fact, Dr. Nelson Glueck has recently made many discoveries by purely surface exploration in Transjordan.

If the sun-dried brick is the Alpha, then the potsherd is the Omega for the archaeologist who is investigating ancient sites of habitation. The apparently insignificant potsherd has led to the discovery and excavation of many an ancient site. These indestructible fragments of pottery lying on the surface of a mound or washed down the slopes of it, do more than indicate chronological position; they locate settlements covered by the dust of ages. One might paraphrase a famous sentence by saying, in reference to the archaeologist, "And a little sherd shall lead them."

How Dig a Site

Before answering this frequent question, the writer must call attention to the fact that in most countries today not anyone may dig. The day of the treasure hunter fortunately is gone. Around 1909, a Captain Parker, backed by a British syndicate, set out for Jerusalem, not on a scholarly, archaeological expedition, but actually on a treasure hunt. Such ventures are hardly possible today. Concessions to dig are now granted only to responsible parties, representing reputable and well-known institutions or foundations, such as the British Museum, the Metropolitan Museum, the Chicago Oriental Institute, the American School of Classical Studies in Athens, not to mention other and foreign institutions. The concessions are granted by the governments through their appropriate departments respectively. In Greece, the Archaeological Department, presided over by a government official who is usually an archaeologist, makes the direct delivery of the concession in writing. The *Ephoros* (also a native archaeologist), who is in charge of the monuments and sites in the particular province in which the excavation is to be conducted, is supposed to look out for the interests of the government and to cooperate with the excavation staff.

There are conditions to be accepted by the excavating institution and its director in the field. The stipulations vary somewhat in the different lands. In Egypt usually half of the finds become the possession of the excavator, that is, of the institution or backer of it. The British Museum and the University of Pennsylvania were permitted to take for their respective collections their share of the objects found in the Royal Tombs at Ur; the rest of the finds remain in the museum at Baghdad.

But in Greece, where the remains from antiquity have not survived in great quantity, for here there is not the dryness of the Nile Valley or of the Mesopotamian desert, nothing is supposed to be taken out of the land.

However, in the case of pottery the Greek government will permit some duplicates to be taken home. Reference here is to objects obtained from excavations. Coins and vases, offered for sale by local dealers without objection by the government, may be carried out of the country, openly if declared. Sometimes it has been necessary for a tourist to get a permit to take out of the country a few potsherds. But the main thing to note is that digging by irresponsible or unauthorized persons is prohibited by most of the foreign countries today. And this is a distinct gain for scholarship.

After the site has been selected and the concession granted, there is the matter of obtaining the land from the owner. Sir Arthur Evans bought the land where from 1900 on he excavated the great "Palace of Minos" on the ancient site of Knossos. But more often arrangements are made to rent the land. Then, if the results prove to be important enough, the site may be expropriated by the government and placed in the category of a public or national park. Or the excavator or the institution, represented by him, may have the government expropriate the land but pay the costs.

The French School at Athens, which was granted the concession to excavate at Delphi, had to remove the village of Kastri to a place over the adjacent ridge before a spadeful of earth was removed from the sanctuary of Apollo. The modern town of Delphoi, as it is now called, has its hotel, the Pythian Apollo, but it is situated a few hundred yards west of the Pythian Apollo's Temple.

Similarly, the American School at Athens had to purchase all of the houses which had for years been situated on the site of the ancient Agora, and then demolish them, before actual excavations could be commenced at this site. However, at Old Korinth only one or two small houses and a tiny church had to be removed.

Often the site desired is used as an olive orchard or a vineyard or for wheat or barley. At Nemea, clay beds for drying grapes and transforming them into currants or raisins had to be torn up to permit the investigation of this spot. In every case, of course, the owner is suitably reimbursed—in the judgment of the government and excavator at least, rarely in the opinion of the owner of the land.

It is stipulated by the government in Greece that anything which has been uncovered must be suitably housed and protected or it must be recovered with earth. At Nemea, the rather unique baths of the gymnasium with plunge bath and tubs was thought worthy of preservation for exhibition. Hence its walls were continued up to a suitable roof level and it was roofed over; thus was formed a local museum. Incidentally, a heavy rain transformed the tiny stream which once furnished water for the bath into a torrent and this burst into and flooded the museum. The result was the damaging of the numerous vases which the writer had dug up in the nearby Bronze Age site of Tsoungiza and had had reconstituted by the vase-mender.

In many cases, however, the site excavated, whether it yielded foundation-walls or nothing, is covered up with earth and the land returned to the owner who may replant his field or lay out thereon new beds for his raisins. A large mosaic floor is usually covered over again, unless it lies within an expropriated area. There is one notable occurrence of the "great dis-

covery" by a certain archaeologist, of wonderful mosaics. Several mosaic masterpieces were discovered by him, so the papers said. As it happened, they had all been discovered years before, described, and then covered over with a safe thickness of earth to protect them. A mosaic floor is not only difficult to lift and remove, but few museums have the necessary space for so extensive an exhibit.

In the case of the two sites with which the writer was associated in investigating, Zygouries and Nemea, both were covered over with earth. At Nemea, wheat had been planted on the mound. But the site of Zygouries was farmed by monks and yielded a so-called vegetable (a euphemism for cow-peas), called *koukia*, which we had to eat. Both sites, incidentally, had been destroyed at the end of the Bronze Age. ca. 1150 B. C., and never reinhabited. Hence the remains of settlements which had succeeded one another from ca. 3000 to 1150 remained undisturbed by later peoples who have for thirty centuries been planting and reaping within a few inches of the remains of a civilization which flourished in the times of the Homeric heroes. For it is the civilization of the Bronze Age which is, for the most part, reflected in the pages of the *Iliad* and early parts of the *Odyssey*.

Just as the Middle Helladic builder was ignorant of the Early Bronze Age vases which lay a few inches under the floor of his house, just so the modern inhabitants of Nemea and Hasios Basilios did not suspect that under their planting on Tsoungiza and Zygouries, respectively, lay the remains of civilizations three to four thousand years older than theirs. One Nemean, in fact, all too clearly indicated that he wished that the writer, too, had been unaware of the ancient houses and artifacts which lay concealed under the soil of his field.

The method of modern archaeological excavation was illustrated in the lecture by lantern slides. The views were from photographs taken at intervals in the course of digging at sites, in the excavation of which the writer had participated. These were supplemented by slides of views from other sites.

The scientific or systematic excavator adheres to the stratigraphic method, whereby a site is uncovered layer by layer from the top surface to rock or undisturbed soil. The indiscriminate digging of pits for treasure or even for "small finds" is now taboo. Of course, the sinking of shafts or digging of trenches to investigate the possibilities of a site or to ascertain the depth of the deposit of human occupation is permissible and desirable at times. Even so, an accurate record is kept of the stratification evidenced by the trench or pit. This practice of sounding by a shaft is usually confined to the beginning of a dig.

There are, of course, occasions when it is advisable to sink a pit at the end of a season. There may not be time to reach the lowest level in this season and, if it seems doubtful that the excavation may be resumed next season, it may be highly desirable to obtain soundings during this present campaign. But even in such emergencies only one or two places on the site will be so tested. Even in cases where time permits of a complete, systematic excavation of the site, a portion of the site may be left untouched for the future archaeologist. For perhaps in the light of knowledge acquired in

future years, significance may come to be attached to the position of objects or to other conditions which the present excavator may not think important or for which he may not be on the lookout.

It is essential that there be enough assistants to supervise a dig. Better to have fewer workmen well observed than too many men digging without close supervision. A trained foreman is obviously a great asset in digging and handling the men. At Knossos, there seems to have been too great a force of workmen. But then we might not now have the gold and ivory Snake Goddess in Boston if the Knossian diggers had been too closely supervised.

After all surface finds have been recorded and stored away, the workmen are set to the task of removing an arbitrary layer of earth, about six inches in depth. Every sherd and object is saved from this stratum which will be designated by a letter for the area and by the numeral 1. The wooden tag, which will go with the finds from this layer might be labelled "A-1 (0-.15 m.)" The metric system is often employed. Usually two workmen with picks or mattocks will be followed by men with shovels—or, rather, spades. (It is the spade which appears in books as the archaeologist's chief implement.) Both types of workmen are supposed to look out for and save the objects in the earth which they are removing. The earth in some cases may be tossed to the side but more often has to be removed to the dumping place at the edge of the mound. In the larger excavations, steel dumping cars are used which run on steel tracks laid for them. The earth may be conveyed to the cars by baskets.

The great problem is to get the workmen to save everything, no matter how insignificant and apparently valueless the thing may be. Here is where an experienced foreman or worker may be of great help. The average workman in Greece—in fact, in all the lands of the Mediterranean Area and Near East—is convinced that one is looking for ogld. Schliemann's finds of gold at Troy and Mykenai, not to mention the gold from tombs in Egypt, appear to have become wide-spread in story and legend. "Of course, these Americans, who make so much money, have come over here to find gold and other treasure." Hence it is difficult to dispel this conviction that archaeologists are gold-seekers.

At last, the workers are made to understand that every potsherd, even undecorated ones, must be saved. Then, when a worker seems to think that you just want sherds by the bushel, one must caution him to be careful and not break a vase or intact portion of one. As soon as it can be done, it is well to reconstruct a vase from the sherds which have been found and show the workmen what is desired. These sherds, along with objects of terra-cotta and stone and also blades of obsidian, chert, or flint—in fact, everything—found in this stratum, are put in a basket which contains the wooden label "A-1." This basket is given to a boy who washes the sherds and artifacts and returns them to the basket. Meanwhile the finds from "B-1," "C-1," and other areas have been brought in and washed. Usually at this point one of the staff examines the baskets and discards some pieces and some sherds which are obviously of no value because of their condition. But the greater part of the finds, still in their individual baskets, are taken

to the workmen who have been trained to clean the pattery and objects with a solution of hydrochloric acid. This will rid the sherds of any clay or lime accretion which the water has not removed. All the finds from the baskets are put in trays, each with the wooden label ("A-1," "B-1," etc.), and stored in the excavations storeroom or museum.

Meanwhile, the workmen have been removing a second stratum, again of the arbitrary depth, say, of six inches (actually 15 centimeters), and all the sherds and objects found in this stratum in the various areas are put into their appropriate baskets which will contain labels reading "A-2," "B-2," "C-2," etc. All this material will be washed with water and cleaned with acid, and stored in trays.

And so this process, this method of digging layer by layer and thus obtaining the stratigraphic evidence of the site, continues. The layers or strata removed are of arbitrary depth but if a floor-level appears, the workers are stopped from going deeper and everything is taken from the level and the label of the basket may read "A-4 (.45-.55)." If time permits, the site will be dug down in this careful, layer-by-layer method, until rock or an undisturbed level is reached.

So eventually, in the excavation headquarters, there will be a veritable, illustrated catalogue of the finds from the various strata at the site, all preserved in trays and cases appropriately labelled.

The members of the staff have in the meantime been busy. Not only have they had to keep advising the workmen not to throw away anything and have been busy directing their digging, but also they have been keeping a "log-book" of everything that has come to light: a wall, a vase, the appearance of ashes, or a floor-level. Every detail must be logged, plans must be made on which are recorded the position of the walls, the various objects found, and the depth below the surface of each item. Then, too, photographs must be taken continually. The upper wall must be measured, plotted on the plan, and photographed, for possibly this wall may have to be razed in order to reach the floor of the house underlying it. Or future rains or some accident may cause the wall to collapse. Hence one must have the photograph and the data in the log-book available for future use, in order to reconstruct on paper at least this wall which may have become ruined or may have been by necessity removed.

At the same time, the individual objects which have been removed from each stratum must be catalogued or labelled on the spot. The vase, no matter how fine an artistic work, loses its value when there is lacking information about the context in which it was found. Hence the usual nine hours a day passes rapidly for the archaeologist, with his directing, recording, planning, and photographing. Even if there is a man who does nothing but take photographs, every member of the staff is kept busy at the dig. And in the evenings, there is much to do. Finds must be labelled and catalogued on cards. Or one will want to rewrite the log for the day. A plan may have to be drawn. And, of course, there is always work for the photographer to do. Meetings will have to be held to map out the next day's work or the next project.

Fascinating work, yes, but there is more work in an archaeological excavation than the layman is apt to believe. Some days there may be the mere routine work of removing piles of earth without finding a single sherd or artifact. Hours may be spent in lifting and removing great stones. Perhaps the dump left by a previous excavator is found to lie above an important structure and it must be removed to a point farther away. On the other hand, something may be coming to light every minute or two. Especially is this true in the digging of Bronze Age settlements and in investigating tombs.

Well, in time the site has been excavated down to a level where there is no trace of habitation. Rock, or shale, or hard-pan has been reached. Soundings have revealed no lower levels of habitation. Now comes the work of reviewing the evidence, the actual finds and the records in the log-books and the card-catalogues. The synthesizing of all this evidence and the comparative study of finds from other sites will require intensive work on the part of those who have charge of studying and publishing the material from this site. This work is as important, in a way more important, than the acquisition of the evidence from the excavations.

The work of the archaeologist does not stop with the recording, cataloguing, and publishing of the results of his excavations. The important archaeological investigations, carried on in museums, is beyond the province of this lecture but should be borne in mind. The real aim of Archaeology is to do more than bring to light monuments of the past. Archaeology is not a science, in the sense of a natural science; it is a humanistic study. Its chief aim should be to rehabilitate the great bygone civilizations, to present to moderns the great achievements of the ancient world. The ancients have created much that we might do well to emulate. The study of the remains of Ancient Greece, for instance, teach us that the term "ancient" does not connote obsoleteness. Instead of exclaiming—as some people do—"how modern were those ancient people!", perhaps it might be more correct to admit how ancient we are.

The true purpose of Archaeology should be, as Millar Burrows has well expressed it, "to gain an understanding of man's life in bygone ages." Architecture, Sculpture, Painting, and the other arts, created by the great or gifted peoples of antiquity, as well as a "way of life," may all serve as models for modern man. "Dead men do tell tales," once said J. P. Droop of Liverpool, "and the tale is told by the things which they have left behind them." Archaeological Excavation is one of the means of recovering these tales and legacies for us of today. And that constitutes the humanistic value of Archaeology.

READING LIST

The following books contain accounts of discoveries in various lands. Some of them discuss the aims of archaeology and methods to be followed:

Baikie, James: *A Century of Excavation in the Land of the Pharoahs.* New York, Revell Co., 1924.

Burrows, Millar: *What Mean These Stones?* New Haven, American Schools of Oriental Research, 1941.

Carpenter, Rhys: *The Humanistic Value of Archaeology.* Cambridge, Mass., Harvard University Pres, 1933.

Casson, Stanley: *Progress of Archaeology.* London, Whittlesey House, 1935.
"A round-the-world survey of modern archaeological discovery" in Europe, Asia, Africa, and America.

Chiera, Edward: *They Wrote on Clay. The Babylonian Tablets Speak Today.* Chicago, University Press, 1938.
Modern scenes and illustrations of ancient ruins and monuments appear with the descriptions.

Droop, J. P.: "On Excavating," *Greece & Rome,* 1932, pp. 143-150.

Glueck, Nelson: *The Other Side of the Jordan.* New Haven, A.S.O.R., 1940.
The River Jordan. Philadelphia, The Westminster Press, 1946.
These two books show what may be accomplished by surface exploration as well as by excavations.

Gordon, Cyrus H.: *The Living Past.* New York, The John Day Co., 1941.
A descriptive and archaeological work dealing with the ancient sites and discoveries in the Near East, especially Palestine, Syria, and Mesopotamia (Iraq).

Magoffin, Ralph V. D., and Davis, Emily C.: *Magic Spades: The Romance of Archaeology.* New York, Henry Holt & Co., 1929.
A popular work covering many discoveries in both hemispheres.

Magoffin, Ralph V. D.: *The Lure and Lore of Archaeolgoy.* Baltimore, The Williams & Wilkins Co., 1930.
A small book dealing with the history and "science" of Archaeology, and also with some discoveries.

McCown, Chester C.: *The Ladder of Progress in Palestine.* New York, Harper & Brothers, 1943.
"A fascinating account of man's search for a knowledge of his past; the where, how and why of recent archaeological discoveries in Palestine."

Petrie, Sir William Flinders: *Seventy Years in Archaeology.* London, Low, Marston & Co., 1931.
The life and experiences, mostly in Egypt and Palestine, of this great archaeologist who died at the age of 89 in Jerusalem in 1942.

Woolley, Charles Leonard: *Dead Towns and Living Men.* Oxford University Press, 1920.
These "pages from an antiquary's notebook" deal largely with Egypt, Italy, Karchemish, and Aleppo.

George Coffin Taylor is Kenan Professor of English in the University of North Carolina. A graduate of the University of South Carolina, he received the Ph.D. degree from the University of Chicago in 1906. He taught at the University of Colorado, where for some time he was head of the English Department. After an interval of residence in Columbia, South Carolina, where he practiced law, Doctor Taylor returned to teaching in 1925. He is a member of the Mediaeval Academy of America and is the author of several books: *Lyric and Drama in Mediaeval England, Shakespeare's Debt to Montaigne, Milton's Use of Du Bartas, The Modernity of Shakespeare.* He is co-author of *The Interlinear Shakespeare,* one of the five supervisory editors of the recent volumes in the great Furness Variorum edition of Shakespeare's writings, and a member of the Editorial of *Studies in Philology.* The lecture printed here was delivered April 30, 1946, in Gerrard Hall.

WILLIAM SHAKESPEARE, THINKER

By George Coffin Taylor

"Shakespeare has been denied mentality," says Mark Van Doren. Van Doren is right. In the past, as in the present, men, undeniably great as thinkers themselves, refuse to admit that Shakespeare has the quality of mind which entitles him to be classed as one of the greatest thinkers of the world. Voltaire, calling Shakespeare a "drunken barbarian," is perhaps the most offensive of the group; but the list includes such persons as Tolstoi, Stoll, regarded abroad as one of our most distinguished American critics, and, to bring Prometheus up to date, Gibbs, literary critic for the *New Yorker*. They all refer to Shakespeare as not too towering in intellect. Professor Hemmingway of Yale recently in the greatest edition of *Henry IV, Part I* (Variorum), goes on record in favor of a Shakespeare who personally believed in the most fantastic aspects of the supernatural. Hence it is that, despite the fact that many, including our own Emerson, rank Shakespeare high as a thinker, a great body of important men do not. An old acquaintance of mine, Charles Osgood of Yale, advises one of the following for constant companionship in his recent *The Humanities as a Means of Grace*: Dante, Spenser, Milton, and Johnson. My old teacher, Santayanna, in *Three Philosophical Poets* endorses Lucretius, Dante, and Goethe. May I cite at random a few remarkable statements by intelligent men in other connections, to the effect that Shakespeare is no very important thinker: J. W. Mackail, a great Shakespearean, says: "But to read a philosophy into Shakespeare, or to invent some 'obsession' in him and hunt for traces of it throughout his work, is not only idle but hurtful. . . . Shakespeare was like putty.' Shakespeare was like putty to everybody and everything: the willing slave, pulled out, patted down, squeezed anyhow, clay to every potter. . . . Common sense rejects the more extravagant fancy that Shakespeare embodies a system of human nature and a directory for human life. . . . Shakespeare does not teach; he illuminates." T. S. Eliot, well known and admired in certain circles, speaking as if out of Sinai, says: "I once affirmed that Dante made great poetry out of a great philosophy of life; and that Shakespeare made equally great poetry out of an inferior and muddled philosophy of life. . . . And that when a poet like Shakespeare, who has no 'philosophy' and apparently no design upon the amelioration of our behaviour, sets forth his experience and reading of life, he is forthwith saddled with a 'philosophy' of his own and some esoteric hints towards conduct." Benedetto Croce, a great critic, says: "Shakespeare caressed no ideals of any sort and least of all political ideals. . . . Shakespeare is not a philosopher: his spiritual tendency is altogether opposed to the philosophic." John W. Draper of the University of West Virginia, says: "Shakespeare regarded philosophy not only with disfavor but with derision and contempt." Oddly enough, it never seems to occur to any of these people that by detracting from Shakespeare's mentality they are not necessarily adding to their own.

Some great men are, however, on my side of the question. Ralph Waldo Emerson, whom the greatest of America's Eliots calls our greatest Ameri-

can thinker, says that Shakespeare is the greatest of all thinkers: "So far from Shakespeare's being the least known, he is the one person, in all modern history, known to us. What point of morals, of manners, of economy, of philosophy, of religion, of taste, of the conduct of life, has he not settled? What mystery has he not signified his knowledge of? What office, or function, or district of man's work, has he not remembered? What king has he not taught state, as Talma taught Napoleon?" Samuel Taylor Coleridge, whom many class as the greatest of all critics of Shakespeare, says: "In all the successive courses of lectures delivered by me, since my first attempt at the Royal Institution, it has been, and it still remains, my object, to prove that in all points from the most important to the most minute, the judgment of Shakespeare is commensurate with his genius,—nay, that his genius reveals itself in his judgment, as in its most exalted form. . . . Does God choose idiots by whom to convey divine truths to man?" Evidently Coleridge was replying to a school of criticism which considered Shakespeare as an "idiot," a "drunken barbarian." One may wonder whether the critic who considers Shakespeare below himself in intellect realizes that he is thereby enabling the rest of us to take his measure as a thinker. I shall try a new method in order to prove that Shakespeare is a thinker, a great thinker.

I do not intend to talk to you about the side of Shakespeare which I shall have to admit is his greatest side: that is his genius as a poet—some think the greatest of all poets, past and present. Nor shall I attempt to talk about him as a dramatist, whom many people think the greatest of all dramatists. That would involve exactly the side of Shakespeare which I wish to get farthest away from as I talk of him as a thinker. Great poet and great dramatist he is conceded to be by all. Great thinker he has not been admitted to be. But intentionally or not, even if only incidentally so, he was a thinker of the first rate and on a grand scale. Poetry is highly emotional, and thought, of course, though intensified by emotion, is often obscured by it. Instead of presenting, therefore, Shakespeare the poet and Shakespeare the dramatist, as he has been presented to you some few thousand times before, I am trying to present to you Shakespeare the thinker and as exactly the kind of thinker we all need at this very hour.

I have taken on a tough job, a difficult proposition, in introducing you to Shakespeare, thinker. All the other great thinkers from Plato on to today have one great advantage over Shakespeare. They presented their main ideas in highly-developed prose. Take the matter of Truth, for example, or the Nature of Man, or Woman, or Ambition, or Order in Government, or Authority for or against, or Woman's Rights, as a few examples of themes highly and elaborately developed by men conceded to be great thinkers. Now Shakespeare discusses almost all of these themes and many others discussed by great thinkers, but, as I said, at a great disadvantage. The other great thinkers systematized their thoughts on the various themes they discussed. Shakespeare seldom systematized his thought except in a few long digressions such as when Hamlet discusses at length how not to overdo or to underdo in acting, or Ulysses discusses the necessity

for a high degree of regimentation in government during the time of war or Falstaff discusses how alcohol stimulates our intellectual faculties to perfection. But as a rule, Shakespeare has to break up his idea into small fragments and stick them all about, now in the mouth of one character, now in the mouth of another. My task, as you see then, is difficult indeed. It is to collect all these fragments on Truth, Order in Government, Alcohol, and splice them together so as to make a unified whole, a fully-developed idea. My task is also, you will observe, to eliminate as best I can the musical accompaniment of Shakespeare's rhyme and blank verse and the intensely exciting, highly dramatic situations in which Shakespeare's ideas occur. I do this partly by dropping out the rhymes when possible, dropping out phrases in such a way as to make the blank verse less conspicuous and by eliminating the names of the characters whenever they occur if possible. When so done, the developed ideas of Shakespeare exactly as he expressed them, stack up against the highly-developed ideas of, say, a Bacon, a Montaign, or an Emerson, or any other thinker of the past or the present.

Please do not think that I have any intention of giving the public the impression that anyone by any means will ever be put in the position of knowing exactly what Shakespeare himself actually believed in regard to any of the great controversial issues of all times. A mass of material written by scholars nowadays, who should know better, attempts to show Shakespeare's own personal extreme views about many of the issues which we of today find it impossible to discuss with moderation. He has been approved and denounced in turn as a Bourbon and a Marxist, and as every sort of thinker lying in between these two swings of the pendulum of political thought. Those of us who know Shakespeare best and like him best incline to the opinion that there is every bit as much of Shakespeare himself in Falstaff as in Hamlet, every bit as much of him in his peasants as in his kings.

It is objected that I am taking liberties with Shakespeare in presenting his thoughts on separate subjects organized by me rather than by Shakespeare himself. A very brilliant friend of mine in New York took a look at one of these dialogues I am tinkering with and said, "We New Yorkers like our whiskey and our Shakespeare straight." Now as to this matter of the whiskey, I am not sure: (I have no idea of posing as an expert as to that.) But I do know that never, since Shakespeare's day, has anyone ever got his Shakespeare straight. It is doubtful whether anyone in Shakespeare's day or since ever read a play of his exactly as he wrote it. Maurice Evans, at this instant cutting out the intellectual portions of *Hamlet* for a G. I. audience (some of the G. I.'s resent the imputation), and Miss Webster, shifting capriciously Prospero's lines to the epilogue, are not the first, nor shall they be the last, of the great actors who take liberties with their fellow actor, Shakespeare. At this very time in America he is being presented in the most bizarre forms and in even more grotesque forms in Russia. Through loud speakers he reached tens of thousands a day in New York parks; he is cut and abbreviated *ad infinitum;* he is presented in modern dress and in costume as for centuries, for negro educational and other soci-

ological purposes. "Information Please" seems to be resorting to Shakespeare more and more, month by month, for parlor purposes. He has crashed the gates of the Walter Winchel Column. From Moscow comes our delicate Ophelia, now strapping and robust, rip-roaring drunk, and a Hamlet really crazy, to end in a real madman's death. Surely with such impudent liberties being taken with Shakespeare, it little behooves us to quarrel with a form of presentation such as I now propose, a form which may enable Shakespeare to take his rightful place as thinker among great thinkers.

In any case, it will certainly do us no great harm, and it may do us a world of good, to turn back and listen to one whom many think endowed with the gift of utterance above all other men, to hear him express himself on nearly every matter in which we are at present most fundamentally and vitally interested and in perhaps a sounder and more common-sense way than many conspicuous moderns now have the gift to talk about them. Thus presented and read, he may do much to bring us back to our senses, as Don Stauffer said recently to me. Properly organized and properly understood, Shakespeare's thought may serve, after a sort, as a remedy for many of our present excesses in the world of ideas, or, if I may put it fancifully, as antidotes for modern phobias. He may help us to reappraise our stock of ideas of today and to assess them at their true value. We have too long been content with using Shakespeare merely for our delight in his masterful skill in expressing outmoded or dead ideas beautifully; with picking this or that thing out of him, looking at it much as a connoisseur of antiques would hold an emerald or jade scarab in his hand, remarking, "Most interesting, how perfect," paying him other conventional, hollow compliments.

To show how Shakespeare's thought may help us nowadays, it becomes necessary at this point to call attention to possible defective drifts in our mentality. Please let it be clearly understood that many of our dangerous attitudes I refer to are not directed at any individual or any particular country. If the cap fits why there is nothing else for the individual or the country to do but wear it; even if it is our own country that it fits.

I am assuming then that you will for the most part agree with me that things have been changing so fast in regard to all matters affecting our happiness and safety that we are giddy, dizzy; that we have become a confused and bewildered people, worse, a frightened people. I am assuming also that no one living today in the very midst of all this confusion can show us the way out of our bewilderment. I am assuming also that we are living in a world right now honey-combed with mental booby-traps. With a world still bristling with bayonets, dominated by hatreds and revenges which we often like to call justice, and in many spots with the different groups within the nations themselves still tearing at each other's vitals like a bunch of bobcats, we say peace months because relatively peaceful. To use the more polite language of Milton and Dante, though we may be out of Hell's hottest regions, certainly we are still wandering and meeting in the milder shades of Purgatory. In such a state of confusion we grab like a drowning man at

anything next to us. There are, of course, some people who have discovered various types of over-simplified formulas which will release us easily from the natural network of the evils of existence and social evils, the natural shocks that all flesh is heir to. But the great bulk of us, as thinking people, are not so fortunate as to be satisfied with any simple prescription for the complex diseases now afflicting the body of the individual or the body politic at present. Instead of turning then to any one of the many voices crying in the wilderness today, I am asking you to turn with me to one who, like us, fell upon an iron age of human butchery and primordial brutality, where mothers could but smile when they beheld their infants quartered at the hands of war; an age in which we are exposed to every kind of wind of doctrine and ism, characteristic of an age of violence; turn to one who even under such conditions kept his feet, kept his head, maintained his equilibrium; my guess is because he, above all others, was born with a gift of laughter and a sense that the world is mad. From him we may get much which may help us to stave off a coming catastrophe.

It would be misleading to suggest to you that Shakespeare would have endorsed the pacifist extreme point of view. It's a fairly safe bet that, coming just at the time of the Spanish Armada with its threat of freedom, Shakespeare would have said, "Be ready if attacked. If any one asks for it, keeps asking for it, why there's nothing else to do but let him have it." If Shakespeare had lived about eighteen years longer, using Milton's "Lycidas," he might have said, "It is good to have the great engine standing at the door, standing ready to strike once and strike no more." But Shakespeare would have added in his own words, "O 'tis great to have a giant's strength but tyrannous to use it like a giant."

I can see the lip of the modern curling with scorn and supercillious disdain at the suggestion that one like Shakespeare, as a thinker, can help us in our present emergency of danger to all men of all nations, to us the heirs of all the ages in the foremost ranks of time. What crazy idea, you may well ask, leads me to suppose that a literary genius, of all people, however great, can help us to avoid plunging into the next and most devastating of all the organized slaughters which man seems somehow unable to avoid.

May I suggest, then, why? There are two other types of mind to whom we have hitherto turned. First to the scientist. Second to the politician. Now I have unbounded respect for the scientist. But if we look to science alone to save us, we see what has been done in the past. The scientist above all others has with magnificent objectivity unleashed for us the enormous energies and forces capable of being used by us as constructive and destructive. Then the scientist has washed his hands of it, saying, "I give you this; it is up to the rest of you, you the people, to make a wise use of it." Hence the tractor turns tank and the aeroplane turns bomber. Ironically enough, the scientist is unleashing latent forces so horrible as to make it impossible for the politician to make possible one of the four freedoms: freedom from fear. We can't expect the scientist alone then to save us from our brutal selves. The politician next. Will he save us? He has a tendency to get so heated up nowadays as ever over the complete righteousness of

his cause or his form of government and the utter wrongness and evil of all other causes or forms of government that he is willing to plunge the world into another war to prove his case, atomic bomb or no atomic bomb. The political leader is so often obliged to retain his hold on us by organizing the hate of those of us who think of ourselves as the "outs," against those we think of as the "ins." And so he stores up vast reservoirs of hate; then the dams break—that means war. And what can war but endless wars still breed. Someone may suggest at this point why not try religion. I for one would certainly like to try it. But the critic will cry out that Mohammedans and Christians slaughtered each other on a grand scale, and the Christians, Catholics and Protestants, did the same, prostituting thereby the spirit of Christ, whose unadulterated principles if followed by all of us would make any future wars impossible. I am suggesting, however, about the only type left to consider, the great literary thinker such as Shakespeare, because he is to me the most two-sided, fairminded of thinkers. Surely no one can object to his type of mind as a supplemental aid at least to the other types.

Fortunately for us, Shakespeare was a dramatist. If you will think it over, you will see that the great dramatist such as Shakespeare or Euripides has a quality of thought of great value to us at present living in an age which tends to make us rush to violent extremes of thought. For the great dramatist is concerned perhaps above all others with the matter of violent conflict. Conflict is his meat. He is compelled to make us sympathize artistically with both extremes of any question; there must be a great Iago analyzing love as lust as well as a great Othello or Romeo glorifying love. As a matter of fact, love is discussed by scores of persons in Shakespeare, all different. And friendship is discussed by another group, all different. Hence it comes that the idea of love or friendship is rounded out when all these various discussions are brought together more completely than even by Montaigne, Bacon, or Emerson, who are discussing these matters as one individual man. Shakespeare is therefore perhaps less liable to be doctrinaire than one not a great dramatist, less doctrinaire certainly than we academic people are.

What, then, has Shakespeare to offer us? What are some of the attitudes toward life, the emphases on the relative values of life and men which we have ventured to forget, and the forgetting of which may in part account for millions of us now being pushed over precipices? Well, there are about fifty attitudes to be found in Shakespeare which I should be glad to analyze with a view to persuading you that Shakespeare's emphases and attitudes are just as important as any of ours as a means of extricating us from some of our most dangerous dilemmas, some of our most entangling alliances with modern nostrums. But first let me suggest a few of these which I cannot possibly have time for at present, although I shall take them up in the book I am trying to get in shape now for publication. Here are a few of them, which I shall not on this occasion develop:

1. Free Will—the ability of the individual to determine his own destiny irrespective of environment. Shakespeare gives both sides of this with magnificent emphasis on both. Do we?

2. Irresponsibility—personal irresponsibility for crime. His emphasis in

this case is more workable than ours. Apply this doctrine to oneself and we are lost, the doctrine of irresponsibility.

3. The cock-sureness of the inexperienced thinker and his tendency to go off half-cocked. Shakespeare's emphasis on this is much saner than ours, certainly than ours in university circles.

4. The emphasis on the most important of all the freedoms, the one which enables us to maintain any respect for ourselves, the liberty to think and to argue freely above all liberties even in a state of poverty, without being surrounded with the physical comforts of the most luxury-loving of all animals, man.

5. The brain of a woman is as perfect as that of a man. Shakespeare's heroines in many cases have brains superior to his men.

6. On honor and honesty as virtues without which no individual has any rights in a body politic. You can't make a sound edifice out of termited timber.

7. On the unit of the family being more important than the unity of the body politic. The top layer of American and English society as well as its dregs could get much from Shakespeare on this.

8. On the enormities of the crime of the breach of the natural affections, brother-sister, father-son, etc., and its inevitable result, the degeneration of man.

9. The prerequisite of any and every man being tried by trouble and adversity before having any right to be classed as a man.

10. On individualism, not necessarily meaning "rugged" individualism. The importance of possessing individualism in any society in which common-sense freedom is to survive, or art in any form is not to catch the dry rot.

11. On the danger of an indiscriminate love of man.

12. On the necesity for selecting ethical leaders, the kind from whom we can hope to learn, "What makes a nation happy and keeps it so, what ruins nations and lays cities flat." You and I are really not interested any longer in whether our leaders have or have not any of the ethical qualities which distinguish, supposedly, man from the beast, provided they bring us home the bacon.

These are a few of the important points of view, not a baker's dozen, in Shakespeare's body of ideas which we might, if time permitted, tonight contrast with our own present day points of view to the disadvantage of our own. But we shall not do here what I propose to do in my book. I have selected instead two only out of fifty of the Shakespearean points of view from which you and I may derive profit in contrast with our own, because a consideration of these two would help us mightily in our planning for a world of peace as against a world of war.

I. The first set of Shakespeare's observations which we shall now take a quick look at concern the body politic, which every thinking person is now compelled to be interested in. They are important in that field of thought in which we of today are most likely to swing to violent extremes. Few if any of us are capable of carrying both points of view sympathetically in

one and the same head at the same time. The inability on our parts to do this, of course, has a tendency perhaps to plunge us again into a resort to force and violence. I know of no other literary person who impresses us as being capable of doing this as Shakespeare does. Perhaps having experienced the extremes of view as to all matters accounts for his balanced mind which one needs most in our present crisis. Some of his thoughts (his characteristic thoughts) on matters relating to the body politic will be most offensive to us; others will meet with our enthusiastic endorsement. Here are some thoughts you may approve of under the heading:

OF RICHES

How lust for property corrupts all of us.

Gold. Yellow, glittering, precious gold? Thus much of this will make black white, foul fair, wrong right, base noble, old young, coward valiant. Why, this will lug your priests and servants from your sides, pluck sick men's pillows from below their heads: this yellow slave will knit and break religion, bless th' accurs'd, make the hoar leprosy ador'd, place thieves and give them title, knee, and approbation with senators on the bench. The learned pate (the professorial pate) ducks to the golden fool. This it is that makes the wappen'd widow wed again; she whom the spitalhouse and ulcerous sores would cast the gorge at, this embalms the spices to the April day again. Gold, thou sweet king-killer, and dear defiler of Hymen's purest bed! thou valiant Mars! thou ever young, fresh, lov'd and delicate wooer, whose blush doth thaw the consecrated snow that lies on Dian's lap! thou visible god, that sold'rest close impossibilities and mak'st them kiss; that speak'st with every tongue to every purpose.

Modern reformers can't beat that.

Here are some thoughts that you will not find yourselves in sympathy with, under the heading of:

ON MOBS

(We nowadays handle this subject with gloves on and speak with bated breath and walk with tender feet in the presence of mobs. Shakespeare does not.)

What would you have, you curs, that like nor peace nor war? The one affrights you, the other makes you proud. He that trusts to you, where he should find you lions, finds you hares; where foxes, geese. You are no surer, no, than is the coal of fire upon the ice, or hailstone in the sun. Who deserves greatness deserves your hate; and your affections are a sick man's appetite who desires most that which would increase his evil. He that depends upon your favours swims with fins of lead and hews down oaks with rushes. Hang ye! Trust ye? With every minute you do change a mind, and call him noble that was now your hate, him vile that was your garland. This common body, like to a vagabond flag upon the stream, goes to and back, lackeying the varying tide, to rot itself with motion.

An habitation giddy and unsure hath he that buildeth on the vulgar heart. O thou fond many, with what loud applause didst thou beat heaven with blessing your favorite before he was what thou wouldst have him be! And being now trimm'd in thine own desires, thou, beastly feeder, art so

full of him, that thou provok'st thyself to cast him up. So, so, thou common dog, didst thou disgorge thy glutton bosom of your former favorite and now thou wouldst eat thy dead vomit up, and howlst to find it. What trust is in these times? Was ever feather so lightly blown about as is this multitude?

Here's another we may like: reformers would.

ON THE INJUSTICE OF SOCIETY

O that estates, and offices were not deriv'd corruptly, and that honors were purchas'd by merit. How many then would cover that stand bare! How many be commanded that command!

A man may see how the world goes with no eyes. Look with thine ears. See how yond justice rails upon yond simple thief. Hark in thine ear. Change places and, handy-dandy, which is the justice, which is the thief? A dog's obey'd in office. Thou rascale beadle, hold thy bloody hand! Why dost thou lash that whore? Strip thine own back. Thou hotly lusts to use her in that kind for which thou whip'st her. The big thief hangs the little thief. Through tatter'd clothes small vices do appear; robes and furr'd gowns hide all. Plate sin with gold, and the strong lance of justice hurtless breaks; arm it in rags, a pigmy's straw does pierce it. The jury, passing on the prisoner's life, may in the sworn twelve have a thief or two guiltier than him they try. What knows the law that thieves do pass on thieves? The blind mole casts copp'd hills towards heaven, to tell the earth is throng'd by man's oppression, and the poor worm doth die for 't.

Here's another you may not like:

FOR AUTHORITY

Where two authorities are up, neither supreme, how soon confusion may enter. The heavens themselves, the planets, and this earth observe degree, priority, and place, insisture, course, proportion, season, form, office, and custom, in all line of order: and therefore is the glorious sun in noble eminence enthroned; but when the planets in evil mixture to disorder wander, what mutiny, what raging of the sea, shaking of earth, commotion in the winds, frights, changes, horrors, divert and crack, rend and deracinate the unity and married calm of states quite from their fixture! O! when degree is shaked, which is the ladder to all high designs, then enterprise is sick. How could communities, degrees in schools, and brotherhoods in cities, peaceful commerce from dividable shores, but by degree, stand in authentic place? Take but degree away, untune that string, and, hark! what discord follows; each thing meets in bitter opposition: the bounded waters should lift their bosoms higher than the shores, and make a sop of all the solid globe. Strength should be the lord of imbecility, and the rude son should strike his father dead. Force should be right; or rather, right and wrong—between whose endless jar justice resides—should lose their names, and so should Justice too. Then everything includes itself in power, power into will, will into appetite; and appetite, a universal wolf, so doubly seconded with will and power, must make perforce a universal prey and last eat up himself.

I pass now to a matter neglected by almost all thinkers in our present age. Theodore Spencer of Harvard has discussed it wisely and unwisely recently in his book called *The Nature of Man.* Your ideas and mine on this

particular matter, you will see, are of more fundamental importance, as we think in terms of politics, or government, or peace, than our ideas are in regard to any other matter, certainly of much greater importance than forms of government; just illustrated from Shakespeare. No form of government can be of any great use unless the individuals who constitute it are properly understood and are themselves constituted properly. What is the nature of man? What are you and I really like? Beasts or men, which? You will, I think, agree if we go wrong in our conception of what the individual units which make up society or government are like, then all our plans of government may go awry and come tumbling about our heads like a house of cards; as any structure of society built out of paper cards, tissue paper, must tumble. In other words we shall revert to chaos and let the atomic bomb get rid of the imbeciles who are incapable of using it properly. If we get the wrong idea of what each of us, you and I, are like, all our fine plans for the future are based on brittle glass, and very rightly will smash up. During the last four years one is tempted, as he looks the whole world over, to doubt seriously whether we are men or beasts. I have the feeling that Shakespeare may set us straight here as well, if not better, than any other thinker. For he above all others was conscious of the remarkable rapidity with which the individual man can revert to the beast, and the painful slowness with which we rise to the level where we have any right to be called men. I am going to give you his thoughts on this matter, more or less brought together and organized by me; warning you that in many respects you will be startled at his analysis; since, certainly for years before this last year you and I have been lulled by sociologists, historians and especially by politicians, seeking our votes, into the theory that the ordinary human being is naturally good rather than naturally evil and vicious, that the average man, if given opportunities for his own betterment and for the betterment of mankind, will exercise these opportunities for the betterment of man; that if his hours of work are reduced to, say, eight, five, three, two, he will use the other leisure hours for the purpose of making himself a better man and society a better society. Now Shakespeare in his analysis of the individual unit man is not going to lay any such flattering unction to our souls. From him, as I shall now attempt to show, we get a far truer analysis of what you and I are like. From him we shall see that man is: *first* not to be loved and praised indiscriminately; *second*, that man, though the gentlest of animals, is also by all odds the cruelest; *third*, that man, though the wisest of all the animals, is also the stupidest. (Twenty-four hundred years of thought from Plato to Lewis Mumford show great thinkers realizing this to be true.) Shakespeare's ideas on this subject are tough food indeed for anyone with a weak squeamy digestion. But it is pleasant to remember that Shakespeare, though conscious of the beast in man, is conscious also of the perfectability of man, no one else more sensibly so. Hear his words on this before you look at man's darker side:

> I have ever held that virtue and wisdom
> Are endowments greater than nobleness or riches;
> Careless children may the two latter darken and misuse
> But immortality attends the former
> Making a man a god.

Here is Shakespeare's organized body of thought on the nature of man:

O the difference between man and man! In the catalogue we all pass for men: as hounds and greyhounds, mongrels, spaniels, curs, shoughs, watterrugs ,and demi-wolves are called all by the name of dogs; the valued list distinguishes the swift, the slow, the subtle, the house-keeper, the hunter, everyone according to the gift which bounteous nature has in him closed whereby he does receive particular in contrast to the list which writes them all alike; and so of men. You can't tell whether a man is a man until he's tried out. In the reproof of chance lies the true proof of men, for the bold and coward, the wise and fool, the artist and unread, the hard and soft, seem all to be men. God made him, and therefore let him pass for man. But in the wind and tempest of life, Distinction, with a broad and pow'rful fan, puffing at all, winnows the light away, and what hath mass or matter, by itself lies rich in virtue and unmingled; and only real men are left.

What a piece of work is man! now noble in reason! how infinite in faculties! in form and moving how express and admirable! in action how like an angel! in apprehension how like a god! the beauty of world the paragon of animals! But what is a man if the chief good and market of his time be but to sleep and feed? A beast, no more. Correction and instruction both must work ere this rude beast will profit. In men, as in a rough-grown grove; remain cave-keeping evils that obscurely sleep.

The strain of man's bred out into baboon and monkey. Man, proud man, dressed in a little brief authority, most ignorant of what he's most assured, his own nature, like an angry ape cuts such fantastic tricks before high heaven as make the angels weep, which else would laugh being mortal.

We profess ourselves to be the slaves of chance and flies of every wind that blows, when as a matter of fact the fault is not in our stars but in ourselves that we are underlings. Man of himself runs through all the sins our natures do pursue, like rats that ravin down their proper bane, a thirsty evil, and when we drink we die. I wonder men dare trust themselves with men. Man, thou almost makes me waver in my faith to hold opinion with Pythagoras, that souls of animals infuse themselves into the trunks of men. There's nothing level in our cursed natures but direct villany. What are men mad? Hath nature given them eyes to see this vaulted arch and the rich crop of sea and land, which can distinguish between the stars above, and the stones upon the unnumbered beach, and yet we cannot distinguish twixt foul and fair.

In concluding let us come back to the point from which we started: what Shakespeare can do to help us on all fronts. But before trying to do so, it is ingly intelligent and often almost preternaturally brilliant, as men and women for whom Shakespeare could never be of any use. I should describe this very important and powerful group as a group which, though exceedingly intelligent and often almost preternaturally brilliant, as men and women of the closed mind. This in many respects most admirable set includes, singularly enough, the aged, the middle-aged, and, wonder of wonders, very often these days, the young. This group can never expect any aid from Shakespeare. They have arrived early and late at a point where they have adopted some formula which to them is completely satisfactory as to

all things. An over-simplified formula, maybe, but it does the work. The exceptance of such formulas relieves them of all responsibility of any longer being developing beings in the realm of thinking. Happy are they who have become the slaves or victims of fixed idea. The burden of thinking has passed from their shoulders to the shoulders of others who can do their thinking for them. There is, however, another group of the genus man, not so constituted. They are of the open mind even until death. They are born like that. Middle age does not stultify them, nor can age stale their infinite variety of interests. They seek always for the truth whether it comes in forms adaptable to their accepted creeds or not,—in forms pleasant or unpleasant. In the world of ideas they are developing beings, not capable of becoming static and secure in their own self-certainties. But for such people of the open mind all phases of human endeavor, science, art, philosophy, all areas of thought would finally die of the dry rot, crystallize, fix and perish.

It is to these that I appeal in the name of Shakespeare. Other names than his might perhaps do as well. Montaigne, for example, but he is recently thrown out as an old roue and voluptuary by Fripp. Our own Emerson perhaps,—I think fine,—but condemned by many as too far removed from the average wishes and aspiration of the madding crowd. Plato! Perfect with me, but condemned by one of my most intelligent friends, Phillips Russell, as a Fascist pure and simple. Shakespeare I have never heard condemned in any specific connection by any intelligent person. And so I pick him, probably largely because I know him best and had to sleep in the same room with him for fifty-odd years. Him I commend to you if you are in the second group, capable of change in the basis of intellectual experience, not stultified by acceptance of creed. Should we see fit to open our minds to Shakespeare's quality of mind, we will, I dare say, have the following amazing intellectual experience: We will relieve ourselves of the burden of making ourselves believe the set system of any our most thinkers of today is ironclad truth, of the belief that narrowness of any economic creed will save us from the responsibility of seeking the truth whether it comes in the form in which we wish it to come or in some form distasteful to our particular type of personality; we will relieve ourselves of believing that the only salvation of man is the complete endorsement on our part of fixed and rigid schemes of government for us all, economically or otherwise. With his aid we may come to realize that the most important of all things is keeping an open mind. May I dare to say this, I wonder,—an open mind to any of the most hated of the forms of thought familiar to us all today? Shakespeare will, I firmly believe, convince you, more than any other person with whom you can in these modern days become familiar, that your spirit, the human spirit, is wider and larger and more inclusive in its possibilities than any of the priceless forces that have borne us onward, and that to whole development of man, Hellenism, Hebraism, Platonism, Montaignism, Shakespearism, or any other ism, is but a contribution. He may serve us as a liberator from the narrowing intellectual and thought horizons now gradually beginning to hem us round.

Shakespeare, thinker, might even emancipate us from our present tendency on this earth now to accede admirable qualities only to those of our own nation or allies and to refuse to acknowledge depravity and beastliness to exist among our own group as among the group we class as enemies. During a period of war it is necessary in order to win to assume that everyone on our side is completely right, everyone on the other side completely wrong. When the war is over, it is time to cease the sort of thinking which leads to fanaticism. It is time to take the other fellow's point of view. No one has ever been able to do just this so well as Shakespeare. Though himself living in a period of war and wars, he continued somehow to see life steadily and see it whole. There is no race, no color, no creed, no class in Shakespeare which has not in it magnificent individuals just as splendid as any in our own group, nation, color, class, or creed. The present drift in America toward arrogance and pharisaism on our part to many other countries means a return to savagery, brutality, and barbarism. A drift toward Shakespeare's point of view means a drift toward light, and a possible return to light and the only certain road to peace.

READING LIST

The following books are suggested toward a further understanding of Shakespeare and his times:

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This book gives an excellent analysis of characters. Considers Shakespeare a great thinker.

Coleridge, Samuel Taylor, "Shakespeare, a Poet Generally," *Lectures and Notes on Shakespeare and Other English Poets.* (First collected by T. Ashe, B. A. London, George Bell and Sons, 1920.)

The discussion attempts to establish the fact that Shakespeare's thought is commensurate with his genius as an artist.

Craig, Hardin, "Shakespeare and the Normal World," *The Rice Institute Pamphlet,* Vol. XXXI, No. 1, January, 1944.

Dowden, Edward, *Shakespeare: A Critical Study of His Mind and Art.* (New York: Harper and Brothers, 1884. Third edition.)

Shakespeare is considered against the background of Renaissance ideas.

Eliot, T. S., The introduction to G. Wilson Knight's *The Wheel of Fire: Essay in interpretation of Shakespeare's Sombre Tragedies.* (London: Oxford University Press, 1930.)

It is nonsense to attempt to find a systematic philosophy in Shakespeare.

Emerson, Ralph Waldo, "Shakespeare" in *Representative Men.* (Boston: Houghton Mifflin Company, c. 1876.)

A strong argument in favor of Shakespeare's greatness of thought.

Lee, Sir Sidney, "Aspects of Shakespeare's Philosophy," *The Modern Stage, with Other Essays.* (New York: Charles Scribner's Sons, 1906.)

Discussion of what Shakespeare's characters thought.

Mackail, J. W., "Shakespeare after Three Hundred Years," *Proceedings of the British Academy, 1915-1916.* (London: Oxford University Press, n. d.)

Suggests that it is impossible to ascertain what Shakespeare thought.

Moulton, Richard Green, *Shakespeare as a Dramatic Thinker: A Popular Illustration of Fiction as the Experimental Side of Philosophy.* (New York: The Macmillan Company, 1907.)

A good survey of the philosophy implicit in Shakespeare's plays.

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HIGH SCHOOL WORLD PEACE SPEAKING PROGRAM ON THE TOPIC:

"IS WORLD GOVERNMENT THE PATH TO PEACE?"

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FOREWORD

Peace is the affirmed quest of every nation in the world today. Some are still fighting for their brand of Peace. Others, just demobilizing from a total war for Peace fear they may soon have to renew the fight. Still others are accusing their recent allies of endangering the Peace. Suspicion seems to be riding faster than confidence and trust between leaders of some of the great powers, and for this reason the Peace Conference has thus far brought forth hardly a mouse from all its labors. Four of the big five nations are weakened in their world leadership by internal division and domestic strife. The fifth great power is accused of holding itself aloof from joint commitments and seems, behind a veiled national policy, to be sparring for special advantages toward a Peace that guarantees to it the strongest possible national sovereignty. This fifth power affirms a dislike for the Democracies. And what shall we say for conditions in the Balkans, the countries bordering the Mediterranian, the strife among British subjects, China's gloomy outlook, etc.?

In the face of such international cross-purposes and global confusion, what is the Path to Peace? How shall we find it and enter upon it? We have at least one starting point in that all peoples of the world are declaring themselves to be positive advocates of Peace. But, at present they are working in such devious ways toward this goal that we have achieved only a slight measure of the UNION which produces strength in the world movement toward Peace. Many plans for world Peace have been proposed. We are internationally committed to one, The United Nations, and the allied powers are now working through that, although with more fervor than success. An increasing number of people in the United States, and elsewhere, are taking the position that the United Nations Organization is good as far as it goes, but that it does not go far enough and that it has too many limitations.

One proposed plan that seems to have gained wide currency is a World Federation of Nations, with its World Government. The example cited as a pattern by which a World Federation might be worked out, is the United States of America and its form of Constitutional Government. On this basis we are offering to the high schools the announced World Peace Speaking Program on the topic, "Is World Government the Path to Peace?" You are free of course to write and speak on either side of the subject.

For many obvious reasons the United States faces the obligation, as well as the opportunity, to take the lead in working toward a united world and a durable Peace. This is a colossal task and the time for its doing is NOW. Every American should be thinking, studying and working on World Peace. The call is to you and me and our friends, and our friends' friends. "Peace is possible if effective World Government is established soon enough."

With forethought and generosity, Mr. O. K. Merritt of Mount Airy, N. C., originated this High School World Peace Speaking Program. Numerous County Bar Associations, Women's Clubs, and other organizations are contributing strong support by acting as sponsors for the Program in

their respective local communities. Through the cooperation and facilities of the University of North Carolina Extension Division it is brought to the high schools as a special service.

As background thought on the topic this Bulletin contains two articles by able students in the field of world organization. Mr. S. R. Levering of Mount Airy, N. C., Chairman of the World Federalists Administrative Committee for North Carolina, gives you a supporting article for World Government as the Path to Peace. Professor C. B. Robson, head of the Political Science Department of the University of North Carolina, gives you an article pointing out some of the Obstacles in the Path of World Government. Each of these writers has listed important reference materials for your use in studying the question. You will find a constant flow of material on the topic in current magazines and the daily papers, in addition to books and pamphlets in your local Library. You may also have your teachers write to the University Extension Library at Chapel Hill for special material.

In this world task the item of first importance is to start increasing thousands of Americans really thinking and studying on Ways to World Peace.

HARRY F. COMER,
Director of the Program.

WORLD POPULATION

No one knows the exact population of the world, but according to the most reliable methods we have for computing population totals the 1945 estimate of the world's population was as follows:

All Asia	1,072,359,253
All Europe	392,352,412
All Russia	192,695,710
All North America	174,202,223
All Africa	147,900,066
All South America	83,855,189
Oceana	76,594,066
Grand total	2,139,958,919

RULES GOVERNING THE CONTEST

By Oscar K. Merritt, Mount Airy, N. C.
Business Man, Originator of this Program

The primary objective of this program is to stimulate interest in World Peace among the masses of our people, upon whose collective conviction eventual World Peace must hinge. The most critical problem in the history of humanity is to establish a just and permanent World Peace, lest World War III bring world destruction.

Since high schools are in a postion to lead public thinking in their communities, it is proposed to hold in each high school a speaking contest on the subject, "Is World Government the Path to Peace?"

Scope

This contest is to be open to any high school *provided:*

a. A suitable local sponsor can be secured, and

b. The following rules are complied with:

Rules

1. Each high school shall induce as many as possible of its students to study the literature available and to prepare speeches on the subject specified.

2. The Principal is to appoint one of his teachers as supervisor of the contest in his school.

3. Each high school administration shall select by fair and suitable methods not less than three nor more than six of its students to speak in the final public local contest.

4. Each contestant shall prepare and deliver his own speech. He shall be entitled to oral assistance in preparation and delivery, but it shall be deemed improper for a contestant to use written material not available to all other contestants in his school. All speeches must be original compositions of the individual student, and all quoted materials must be duly acknowledged.

5. Each speech shall be not less than six minutes nor more than twelve minutes in length.

6. Each high school administration and each sponsor should enlist the aid of local churches, civic organizations, the press, radio, and all other suitable mediums to publicize the contest, insure large adult attendance, and report results. Where feasible, radio broadcasting of outstanding speeches would be desirable.

7. The winner of each contest shall be determined by secret ballot in which all persons in the audience, 18 years of age and over, may vote.

8. The final contest in each school shall be held as soon as possible, during the fall term.

9. The Extension Division of the University of North Carolina, at Chapel Hill, shall supervise the program and serve as a "clearing house," preparing and distributing background material, performing necessary clerical work, and ordering for the sponsors gold medals to be presented to the winners.

10. The sponsor for each high school shall cooperate in promoting the program and shall pay $5.00 to the University Extension Division, Chapel Hill, N. C., to cover the cost of the gold medal, printing, and postage.

11. While it is contemplated that this contest ends when a winner has been proclaimed for each high school, wherever desired continued competition may be held between or among winners from various high schools. Rules and awards for additional contests will be arranged by those conducting such contests.

ENDORSEMENT BY GOVERNOR R. GREGG CHERRY

I am delighted to hear of your plans to stage a world peace oratorical program in the high schools of North Carolina under the supervision of the Extension Division of the University of North Carolina with high school orators speaking in competition on the subject, "Is World Government the Path to Peace?"

I hope this program gets the full response it deserves from high school students for I am sure it will stimulate broader interest in world peace among the peoples of our State and will inspire keener public thinking in our several counties.

Yours very truly,

R. GREGG CHERRY.

ENDORSEMENT BY SUPERINTENDENT CLYDE A. ERWIN

To Those Interested in World Peace:

I am delighted to have the privilege of giving my endorsement to the proposed Oratorical Contest which is to be conducted in the North Carolina high schools on the subject, "Is World Government the Path to Peace?". In my opinion, this contest will direct the minds of our young people and older people as well to one of the most important subjects with which civilization will have to deal during the next century at least. If we can learn to think in terms of peace I believe we can achieve peace, and I know of no finer way to accomplish this purpose than to have our young people think and write upon this subject so vital to the permanence of our civilization. I hope that every school will give major attention to this contest in order that we may take this step along the path to peace.

With best wishes, I am

Very truly yours,

CLYDE A. ERWIN,

State Supt. of Public Instruction.

WORLD GOVERNMENT, THE PATH TO PEACE

By S. R. Levering
Chairman, Administrative Committee World Federalists of North Carolina.

Peace or Suicide?

Civilization faces the choice: permanent peace or suicide. If major war comes, atomic bombs, atomic poison gas, biological warfare, long range rockets, or weapons now unknown, (in addition to more conventional airplanes, bombs, and other weapons), will destroy cities, wipe out vast numbers of people, and generally spread death and destruction far beyond past human experience. In one dreadful night, within an hour, the major cities and important towns in the United States might be destroyed, and one-third or one-half the people in the United States be killed or fatally wounded. What a contrast with peace!

Which choice shall we, and civilization, make? This is not a question of individual fear, or individual death, but of the destructon of society and civilization. Which shall it be, peace or suicide? Life or death?

What Defense?

Cannot we prepare a military defense which will prevent such catastrophe? Dr. Louis Ridenour, atomic scientist and former radar adviser to General Spaatz, says, "There is no (military) defense." General of the Army; H. H. Arnold says, "We must realize that the time is at hand for the peoples of the world to admit that their warring power is too great to be allowed to continue. Through international collaboration we must make an end to all war for all time for good and all." All authorities agree that there is no effective defense against modern weapons of war. The only defense, the only safety, is to get rid of war, completely and permanently.

Are We Moving Toward War?

Almost all Americans, most of the Russian people, and most people everywhere want peace. Yet people are confused. Is peace possible? If so, what is necessary for peace? How can peace be obtained?

More than a year has passed since the "end of the war" in Europe and Asia. Are we now on the road to peace? Unfortunately the end of hostilities with Germany and Japan has not brought peace. Already there is war in China and a much more deadly conflict threatens between Russia on one side and the United States and Britain on the other. Apparently the United States is on the road to war; not war against Germany, Japan, or Italy, the "enemies" of World War II, but against Russia and her satellites; probably not war immediately, but growing hostility and fear such as usually has led to war.

Why are we drifting toward war? Russia and the United States no longer are bound together by danger from Germany and Japan. Russia and the United States, the two most powerful nations in the world, definitely fear each other. The result is a struggle between Russia and Anglo-America for power, for strategic position, for spheres of influence, for satellites and allies. This struggle is reflected in world news almost every day. It is dangerous, very likely to lead to war.

How Obtain Peace?

If we are not on the road to peace, what changes should we make? What are the chief ideas about world peace? Here are six important points of view, held by different groups of people:

1—*Peace Is Impossible.* Some people think that there will always be wars.

2—*Isolation.* Some people feel that isolating the United States from the rest of the world offers the best chance for peace.

3—*Heavy National Armament.* Some people think that the best way for the United States to have peace is to arm heavily so that other nations will be afraid to start wars.

4—*Unilateral Disarmament.* Some people think that the United States should disarm, regardless of the armament of other nations, and that this would bring peace to the United States.

5—*The United Nations.* Some people think that the United States should place reliance for peace on the United Nations, and should take active leadership there.

6—*Federal World Government.* Some people think that the United Nations should be changed into Federal World Government, with real power to maintain peace and to control all types of destructive weapons, so that no nation can threaten or attack another.

These points of view are not necessarily distinct and separate. Some people advocate combinations of two or more of them. For example, some advocate heavily armed isolation, and some who think that peace is impossible advocate the United Nations as a way to postpone war. Let us examine these six points of view.

1—*Is Peace Possible?*

First, how about the idea that peace is impossible? Usually this is coupled with the belief that until all people are "good," there will always be wars.

Experience has shown that durable peace is possible within large groups of people, with only a minority completely "good." For example there is peace within the United States among 140,000,000 people of differing races, national ancestries, religions, etc. Only a minority of Americans are really "good." Yet we have had only one civil war in 170 years as a nation, and there is little danger of another. Peace has been established and maintained within other similar nations. Peace is possible within nations, even though it has not yet been established among nations. If the same methods and ways of living which have brought peace within nations were applied to the whole world, it should be possible to establish and maintain durable peace for the world. The lesson of experience is that peace is possible, and long before everyone is "good."

2—*Isolation*

The idea that the United States can have peace through isolating itself from the rest of the world is still held by a considerable minority of Americans. This is natural, since for many years this was quite largely true. With the slow transportation of the 19th Century, and the relatively ineffective weapons then used in war, the oceans largely protected the

United States from attack or involvement in war outside our hemisphere. Then it was usually possible to stay out of European and Asiatic wars. The United States then was not a major obstacle in the path of aggressors. Our isolation also was possible partly because of the strong friendly British navy, which helped to prevent other foreign nations from interfering with the United States or attacking us or our American neighbors. A whole combination of circumstances then enabled the United States to stay out of many wars.

A New Situation

The world has changed, and isolation no longer is any guarantee of peace. For the first time in history, the peoples on our globe really are "one world." Modern developments in production, transportation, communications, and weapons have brought this about. The area for effective use of armed power is now the world. When war comes between major nations it spreads to *all* major nations. The United States inevitably will participate in any future major war, whether it wishes or not. The United States did not want to be in either the first or the second World War. Yet it was drawn in, not by Britain or other countries, but because the victory of Germany in the first World War, or of Germany and Japan in the second, would have seriously threatened our security and independence.

Isolation cannot bring peace in a world of long range bombers and atomic bombs.

3 and 4—*Heavy National Armament or Unilateral Disarmament*

Since these are opposite points of view about the same basic problem, United States armament policy, they are discussed together.

The statement is made and sincerely believed by some that if the United States arms heavily there will be peace, because other nations will be afraid to start wars or to attack the United States. The argument is that the best way to have peace is to prepare for war; that if the United States had been prepared, it would not have been drawn into either World War I or World War II.

The statement is also made and sincerely believed by others that if the United States disarms, even if other nations remain heavily armed, the United States will have peace. The argument is that our armament is a threat to other nations, that they build up armaments to counter our threat, that they then will fear us and hate us. When a sufficient combination has been formed against us this combination will start a war, when they think they have the advantage. In other words, the argument is that national armament leads straight to war, and that therefore the United States should disarm to have peace.

Armament or Disarmament?

Let us examine the record and find what truth there is in these opposing arguments. We find that there is some truth on both sides, but that neither is completely true. Heavy arming has not brought peace to nations, nor is there reason to believe that it will bring peace to the United States. There has never been a major nation which armed heavily and thereby obtained lasting peace. Always some other nation or group of na-

tions also has armed and war has come, or the nation that armed itself started wars. The United States has only about 140,000,000 people, less than 7% of the world's population. We have only a small part of the world's natural resources. If other independent nations obtain atomic weapons and develop industrially it is very unlikely that we could maintain enough armament to keep other nations from starting wars, or to win all such wars if they came. Even small nations, armed with atomic weapons as it is entirely possible for them to be, would be very dangerous.

Atomic weapons give the attacker a tremendous advantage. After each of two nations has as many bombs as it would take to destroy the other, more would be no advantage. If the present type of atomic bombs are "improved" so that they will completely destroy another nation, with no chance for retaliation, the first nation to develop this new type of atomic bomb, which may be Russia or some other country, would be under such a strong temptation to destroy its enemies before they also develop such bombs, that probably it would be unable to resist. No amount of military preparation can ward off such attack or prevent it from being successful. Joseph and Stewart Alsop write in "The Saturday Evening Post" that United States Army planners conclude that there is no effective military defense, and that the only real defense is "political," that is, eliminating war. Is it not clear that peace cannot be obtained by building up national armament in an atomic age?

History also shows that disarming while other nations remain armed does not bring peace. Some nation that builds up armaments considers the disarmed nations as easy prey and attacks and conquers them. For example, unarmed Denmark and Norway were overrun by Germany.

Neither Brings Peace

Experience shows that neither national armament nor disarmament by individual nations while others remain armed can be depended on for peace. In a world of international anarchy such as we now have, either extreme probably makes war more likely. If a nation arms heavily it is considered a threat by other nations, and the ensuing arms race builds fear and hate and soon leads to war. If a nation disarms almost completely, some other nation uses this as an opportunity for expansion or aggression. In a world of anarchy, the armament policy which in the past was considered theoretically least likely to hasten war was to maintain armament sufficient to discourage nations which might otherwise start aggression, but not large enough to be a threat to other nations.

In practice, however, such a theoretically happy amount of armament could never be known, attained or maintained. Enough to discourage aggression always was a threat, or was considered a threat, to other nations. The deadly armament race was on, and the effort to maintain peace by this method always failed. Attempting to maintain peace through armament is even less hopeful in a world of atomic and other new weapons. New discoveries or improvements can suddenly change a nation with inferior armament into a potential world conqueror. Victory or defeat no longer can be predicted with any certainty. A stockpile of atomic bombs sufficient to discourage aggression, theoretically could do so only until the

other nation had better atomic bombs, and in the meantime would be a threat to all nations.

We must conclude that neither national armament nor disarmament of individual nations while others remain armed can now bring peace.

5—*The United Nations*

The United States has joined the United Nations because most Americans now recognize that isolation, armed or disarmed, has not built peace and cannot do so in the future. We are leaders in the United Nations, which was established to build and maintain peace. Certainly the United Nations is a step forward, is better than isolation, and should be supported vigorously.

Yet can the United Nations, as now constituted, establish or maintain peace? It is being used chiefly as another arena in the struggle for power. The United Nations has no power to restrain any of the great nations, nor to eliminate the struggle for power among them. Vital decisions affecting peace or war still are made by the big nations rather than by the United Nations. Decisions usually are made, not chiefly on the basis of right and wrong, but on the power advantage gained by one side or the other. No effective international control has been established over atomic energy, biological warfare, or other weapons of mass destruction. We are in the midst of a gigantic arms race which, unless it can be stopped, is almost certain to lead to war.

Does not the present world situation indicate that the United Nations, as now constituted and operating, is not building effectively enough for peace, and is not likely to prevent war unless amended and changed? Why this probably is true will be discussed later.

6—*Federal World Government*

This proposal is to use the same method to establish and maintain world peace which has proved successful in establishing and maintaining peace within nations. Wherever durable peace has come it has been through government and law. People being what they are, disagreements and disputes and inevitable. The question is how these disputes are settled, whether by fighting or by law and government. Someone has said that human beings, (individuals, small groups, or large groups), go through the following stages: Isolation, Contacts, Disputes, Fights or war, Law and government as a substitute for fights or war in settling disputes.

This has happened continuously, countless thousands of times, throughout human history. Families have joined into tribes under law and government. These have joined into larger tribes or feudal groups. Further joining brought city-states or small nations. These joined into larger nations or empires. In each case law and government has replaced war and fighting as the accepted way of settling disputes. From many thousands of independent warring groups or states the world has come to sixty odd so-called "independent" nations. Actually, however, only a few of these nations really are independent. The others exist on sufferance from the great powers.

Examples from History

The United States is an excellent example. Before white men came to America, there were hundreds of roving independent Indian tribes, constantly at war. After the Revolutionary War the 13 states were actually 13 independent nations, bound together only under the Articles of Confederation. The Continental Congress could neither make laws, nor enforce them. It could only recommend to the sovereign states. Each state had its own army, forts were being built along state lines, and George Washington said that war among the states seemed inevitable. But Washington, Madison, Franklin, Hamilton and others had the vision to unite the 13 independent states into one nation under the Federal Government provided for in 1789 by our Constitution. War was avoided and the way paved for the future greatness of the United States.

The political problem faced by the peoples of the 13 sovereign states, before our Constitution was adopted, was the same as that now faced by the peoples of the sixty-odd nations of the world. The political solution is the same, federal government, then the United States of America, now the United States of the World. The necessity for world government to prevent world war is greater now than the need for a United States government then to prevent wars among the states. We should recognize, however, that the practical problems requiring agreement before world government can be established are more difficult to solve than problems facing our founding fathers. It might be pointed out that one reason for the American Civil War was that before that time there was some doubt whether the United States really was one nation or whether states retained final authority.

Other nations tell the same story. Wars between Scotland and England, once the bitterest of enemies, ceased when both came under the same relatively just government. The many Italian states ceased to fight each other when they united under a common government. The same is true of France, Germany, Russia (with over 100 languages, many racial and religious groups), and many other countries. Everywhere smaller independent groups or nations have come under common government and thereby established peace within the new larger area. Sometimes union has been by conquest, sometimes by agreement.

What Is Government?

The chief job of any government is to maintain and promote law and order. Government takes many forms, but its essential work always is the same. Some person or body makes laws and changes them. Some person or group carries out laws and enforces them. Some person or group acts as a court to try alleged law breakers and punish the guilty, to interpret laws and to settle legal disputes. In other words, government has legislative functions, executive functions, and judicial functions. Another essential for successful government is that it must be able to make laws applying to individual citizens and to enforce them on individuals.

We all recognize the work done by our local, state, and national governments. In towns and counties we have commissioners to make laws; mayors, sheriffs, police, etc. to carry out and enforce laws; and courts to

interpret laws, settle legal disputes, and try alleged law breakers. In states we have legislatures to make laws; the governor, the executive departments, and state police to carry out and enforce laws; and courts with their usual functions. In the nation we have Congress to make laws; the President, the executive departments, and the FBI to enforce laws and carry them out; and federal courts to handle federal matters. Each of these units, town, county, state, and nation, makes laws applying to individual citizens, and enforces them on individual citizens. Each governmental unit is limited in the matters about which it can make laws, carry them out, and enforce them. Purely local matters are left to town or county. State matters are dealt with by the state government. National affairs are dealt with by the federal government.

We can easily see that none of these governments would work if it lacked power to make laws, power to carry out laws and enforce laws on individual citizens, or courts to interpret laws, settle legal disputes, and try alleged law breakers. Government is the basis for peaceful settlement of disputes, avoidance of bloodshed, and the establishment and maintenance of law, order, and peace.

Federal Government

Government over a large area may be either centralized or federal. A centralized government means that all decisions and all powers are in one government. Local governments, instead of being responsible to local people, are branches of the central government and responsible to it. A federal government means that local affairs and local governments are the responsibility of local people, and that each level of government deals directly with individuals. Both systems have been widely tried. The federal system works much better for large areas, since local people know local problems better than central government officials and therefore deal with these problems better. The federal system is more democratic and builds greater local responsibility. Centralized governments are very likely to be inefficient and dictatorial. The federal system is used with relative success not only in the United States, but also in Canada, Brazil, Australia, Switzerland, the Soviet Union (in somewhat modified form), and in many other nations. Wherever relatively just laws have been combined with the federal system, peace and progress have resulted. The federal system is the only one which could work for the world, combining local control of local affairs with world control of world affairs.

Where Has Government Brought Peace?

There are two requisites for peace. First, most people must be willing to accept at least two of the ten commandments, "Thou shalt not kill" and "Thou shalt not steal." Second, a government must be set up to enforce laws based on these two commandments, and to make and enforce such other laws as the people want and need. Government has maintained peace through law among all races and groups of mankind. Prior to Hitler, even the Germans, under the German government, were among the most law abiding of peoples, among themselves. Even the Japanese, within Japan, before 1930 had an orderly society. We customarily speak of "law and order" together, for we know that without law coming from government

there would not be order or peace. How long would our town or county have order and peace if there were no law, no government, and no police to catch criminals? It is the universal experience of mankind that without government and law there cannot be order and peace. Where government and law are just, it is also universal experience that order and peace prevail.

Why Does Government Bring Peace?

1. Government brings peace because it provides orderly peaceful methods of settling disputes. Unless there is government, disputes are settled by fighting and bloodshed. There may be an honest difference of opinion about a line between properties, for example. Unless there is law and a court to reach a just decision, this difference may develop into bloodshed, and force may settle the issue unjustly.

2. Government brings peace by providing peaceful means for changing conditions. Change is inevitable in human society. If some group is unjustly treated, change will come, either by bloodshed or by peaceful means. Government provides peaceful means to obtain justice. We change practices and policies and even the men in charge of government, by peacefully voting instead of by war. Change will come either by voting or by fighting. Government provides the peaceful way to make changes.

3. Government brings peace by protecting peaceful law-abiding people from criminals, violence—killing, stealing, etc. Unless there is government, peaceful individuals must personally protect themselves and their property. This is ineffective in restraining and controlling criminals, and is violent and bloody. Mankind everywhere has found that government and police were necessary to protect peaceful people from criminals.

4. Government brings peace by doing things which the people need and want to have done. This improves the welfare of the people, and therefore makes them more contented and peaceful, and less likely to use criminal violence. Local, state, and national governments provide schools, roads, postal service, public health service, old age and other security payments, food and other necessities for those who cannot otherwise obtain them. World government would help to improve conditions of health, trade, travel, etc. Government is the servant of the people, and is used by them to improve their condition. This helps greatly in keeping peace.

5. Government brings peace by building a common loyalty. It provides a symbol of unity, which helps to bind people together.

Is the United Nations An Adequate Government?

The United Nations is an important step forward. It states excellent principles for the conduct of nations. It provides a forum for discussion of world issues, and thereby will settle some of them peacefully. It provides the machinery for international cooperation in trade, economics, health, etc., if nations want to do so. It provides valuable experience in working on common problems together, and in determining what powers and functions are required for an international organization to be able to prevent war. It is a first step away from unrestricted national sovereignty: nations other than the "Big Five" are bound by decisions of the United Nations Security Council.

Yet we have seen that government and law are necessary for peace. Does the United Nations, as now constituted and operating, provide adequate government and law for the world? Unfortunately, the answer is "No." The United Nations is a voluntary association of nations, in which any one of the "Big Five" can veto action, except in purely procedural matters, and can therefore do as it pleases. The United Nations does not make laws applying to individuals. It can only make recommendations to nations, unless all of the "Big Five" (the United States, Russia, Britain, France, China) agree, which they will almost never do on any matter in which their so-called "vital national interests" are in conflict.

The United Nations has no police to arrest individual criminals nor any army of its own, independent of the various national armies, to enforce decisions against nations. The United Nations can only call upon member nations to supply armed forces to carry out decisions of the Security Council. Since the "Big Five" would have to be unanimous in such requests, no request could be made when one of the "Big Five" was the aggressor itself or favored the aggressor. Since smaller nations are unlikely to become aggressors without the backing of one of the "Big Five," it is unlikely that the Security Council will call for actual suppression of the very aggressions which would be the most serious threats to world peace. Even if a request was made, individual nations could choose not to comply. All in all, armed enforcement of United Nations' decisions appears very doubtful, and probably impossible, in the very cases in which it would be most needed.

The United Nations includes a World Court, which is valuable, but subject to these grave limitations as an effective force for keeping the peace:- (1) Only a nation can be a party to a case before the Court; the Court has no power to try individuals for crimes against world peace. (2) The Court is limited to so-called "legal disputes," questions of international law or the interpretation of treaties. It will not deal with so-called "political disputes," many of which are the most serious threats to peace. (3) Even in dealing with so-called "legal disputes," the power of the Court to try a case depends on the consent of the nations involved. If all nations accepted "compulsory jurisdiction" of the Court without reservations, this would be remedied. (The United States has accepted this "compulsory jurisdiction," but with a weakening reservation.) How much effect would our present courts have if criminals could decide for themselves whether or not they should stand trial? (4) Enforcement of the Court's decisions depends on action by the Security Council, where the big power veto could prevent action.

The General Assembly of the United Nations has very limited power. What real legislative and executive power there is rests largely with the Security Council, and it is greatly weakened by the big power veto and by lack of provision for proceeding against individual criminals.

The real threats to the peace of the world will not arise from disputes between smaller nations, where the "Big Five" are in agreement. The real threats to peace arise from disputes about which two or more of the "Big Five" have conflicting views—these are the very disputes in which the United Nations, as now constituted, will be powerless to act. Consequently

it has little, if any, chance to perform that primary function of government —preserving the peace. In the last analysis, its chances of keeping the peace will rest only on such moral force as may arise from opinion expressed by a majority of its members. This is not enough; and nothing will be enough short of a United Nations representing the people—not the nations—of the world, with power to define crimes against peace by individuals, power to try individuals in United Nations Courts, and police power to enforce world law and carry out the decisions of the Courts. The present situation is as if the Federal Government of the United States could act only against states, and New York, Pennsylvania, Illinois, California, and Ohio could each veto any action it did not like. Such a government would be practically impotent. So is the United Nations as now constituted.

Nevertheless, the United Nations provides an international organization which can be changed into a real world government when the peoples of the world wish to do so. The United States should continue to give vigorous support to the United Nations and to exercise leadership therein. However, we must recognize its weaknesses, and that the United Nations must be changed into federal world government before it can establish and maintain peace.

Can Federal World Government Bring Peace?

The answer is "Yes," if it has the same powers and operates in the same ways for the world that federal governments now operate in nations. It has succeeded in great nations all over the world. There is no reason to believe, if federal government has brought peace to Frenchmen and Britishers in Canada; to Germans, Frenchmen and Italians in Switzerland; to Portuguese, Spaniards and Indians in Brazil; to Russians, Tartars, Mongols and a hundred other groups in the Soviet Union; to the diverse peoples within the United States; that it cannot do the same for the peoples of the world.

Objections to Federal World Government

There are four chief objections raised to world government. *First*, the United States, for example, would have to surrender some of its independence its freedom to make decisions on certain matters. This is true, as far as decisions vitally affecting other nations are concerned. The United States would no longer be free to attack other nations or to damage them seriously, economically or otherwise. The United States, however, does not want to do these things, and therefore nothing vital would be given up. Elimination of the right of other nations to attack us or damage us would be much more important. Some people fear that the United States representatives might be out-voted in a world government. Of course this is possible, but the United States has many more friends than opponents, as shown by voting in the United Nations. If United States representatives were right, there is little danger that they would be out-voted on important issues. Furthermore the world congress would be so constituted that the United States representatives would have votes proportional to the present voice which the United States has in world affairs.

Is World Government Impractical, or Impossible Now?

Second, the objection is raised that world government is impractical,

that it cannot be obtained, at least at present. This may or may not be true. Britain, France, China, and almost all the small nations are now ready to take part in real world government. A recent poll for *Fortune* magazine by Elmo Roper showed that 62.8% of Americans favored our participation in world government, 19.8% opposed and 17.4% were undecided. Germany, Japan and Italy would join. If the United States took the leadership in organizing a real world government, the only possible holdouts would be Russia and her satellites, and Spain and Argentina. The rest of the world could exert enough pressure to bring in Spain and Argentina. Russia would be the only real question. However, it would be to her advantage to join, as much as to the United States, and if she did not join, prospects for peace would be no worse than they are at present. Apparently it is not impractical to obtain real world government if the United States takes that leadership. Certainly we cannot say that it is impossible until the attempt has been made.

In deciding whether world government is "impractical," one should look carefully to see whether the alternatives are more "practical." Is atomic war more "practical"? If world government offers the best chance for peace, is it not the most "practical" course?

Third, the objection is raised that Federal World Government might not prevent civil war. That is true if relative justice and hope were not provided for all peoples. If justice and provision for peaceful change are provided, experience indicates that civil war would be unlikely. And if civil war should come, it would be no worse than other wars. Anything which might cause civil war would bring war more quickly and more surely if there were no world government.

Fourth, the objection is raised, "Don't rock the boat. Advocating world government may weaken the United Nations." But advocates of world government urge strengthening the United Nations by amending its charter, so that it can keep the peace. If the United Nations requires strengthening, and there are few who think that it does not, this is constructive, valuable service. The object of the United Nations is to keep peace. If it cannot, that fact should be recognized now, and changes should be made while there is still time to prevent World War III.

Obstacles to World Government

The chief present obstacles to world government are the attitude of the Russian government and lack of initiative by the United States government. If these factors are changed, world government can come very quickly. Credit is due the United States government for proposing effective international control of atomic energy. But it has not yet proposed or supported real world government. Probably it will not do so until the people understand that world government is necessary for peace and let their representatives in Washington know that they want world government. In the United States then, the chief obstacle is the inertia of the American people. When the American people fully realize the situation, they will surely make their will felt. Then the United States government will take the needed initiative, with profound results. As Walter Lippman says:—"If that (dedication of the power and influence of the United States to spon-

soring and pressing for the formation of a world state) were the dynamic core of the foreign policy of the United States, the influence of this decision upon mankind would be enormous, . . . Never was there such an opportunity for any people as is ours."

In Russia the government controls information getting to the people, and largely determines what the people think. Therefore changing the attitude of the Russian government will have to be accomplished through contact directly with those controlling the government. Changing their attitude may not be easy. If it cannot be changed, World War III appears inevitable. However, the Russian rulers are realists, and there is a good chance that when they realize the benefits of world government, and are faced with atomic destruction or participation in real world government, they will choose world government. Until the choice is given them we cannot tell what their answer will be.

The obstacles to world government *must* be overcome. Certainly every effort should be made to surmount them.

Changing the United Nations Into Federal World Government

The United Nations should be given effective world control over atomic energy, biological warfare, atomic poison gas, and other weapons of mass destruction. This cannot be done by ordinary treaties between sovereign nations, the enforcement of which rests solely on voluntary compliance by the contracting nations. Does experience in outlawing poison gas by treaty (this treaty was generally observed in World War II), offer hope for outlawing atomic bombs, etc.? The best advice says, "No." Gas was not used by Germany in World War II only because it was not a military advantage to do so. Few people think that nations would observe such a treaty outlawing a decisive weapon such as atomic bombs. If Russia and the United States signed a treaty not to make atomic bombs or have any on hand, experience shows that such a treaty would be violated by one or both. We would not believe that Russia was observing the treaty nor would she believe that we were doing so. Therefore in "self defense" one or both nations probably would make atomic bombs, have them on hand, and use them if necessary.

The only way we would believe that the Russians were not making atomic bombs would be for an international Atomic Authority, with inspectors and police including Americans, to inspect and police Russian factories to be sure that she was not making bombs. The only way the Russians would believe that we were not making atomic bombs would be for the Russians in the same inspection and police force to report that we were not doing so. Nations must have complete assurance that no other nation is secretly making such weapons, or all will consider it necessary to arm similarly. The only way in which they can be sure is through supervision by real world government. If international control of atomic energy and other major weapons cannot be obtained, war is almost certain.

International Control of Atomic Energy

The Baruch proposals for international control of atomic energy are an excellent start. However, there are three serious weaknesses. *First,* Baruch emphasizes removing the veto from decisions to enforce, by war,

compliance by nations. Russia will not agree. The important part is to eliminate the veto from everything *except enforcement on nations by war,* and to provide for enforcement against individuals by an international FBI. Here no veto would be necessary and Russia might not insist on retaining it.

Enforcement of law on *individuals* by international police is the answer to the problem of enforcing international agreements, including agreements for control of atomic energy. Enforcement on *nations* by war is so brutal and destructive, and so suicidal to the nations trying to so enforce, that it will not be used and cannot be used in an atomic age. Hamilton, Madison, and others rejected this method for the United States Constitution. As Hamilton said ". . . to coerce the states is one of the maddest projects that was ever devised." Suppose that after she has atomic bombs, Russia takes a piece of Iran, and the United Nations, ignoring Russia's veto, tells the United States to help stop Russia by war. Should we try, our cities, as well as Russia's, would be destroyed by atomic bombs. Therefore probably we would not even try, unless our own vital interests made it imperative, and Russia might get away with taking Iran, as Italy did taking Ethiopia, or Japan with taking Manchuria. Enforcement on individuals, however, is possible and practical. The time to have dealt with Hitler was as an *individual,* in Munich in 1923, when he staged his abortive "Beer-hall Rebellion," as a traitor to world peace, instead of later with the loss of fifty million lives.

Second, the United States proposes to bring all future development of atomic energy under international control while the United States would keep its atomic bombs until it chose to destroy them, thus perpetuating our monopoly. If agreement is to be reached, the United States must promise to destroy its atomic bombs within a stated period after effective international control is established. Whether or not Russia will agree to adequate international inspection and policing, even with this safeguard, remains to be seen.

Third, the Baruch proposals deal with atomic energy only, not war and peace as a whole. Even effective control of atomic energy would be inadequate. Effective world government, doing away with war completely, is necessary to avoid destruction. Other weapons, now known and others to be discovered, are equally deadly. And if war comes, nations soon will make and use atomic bombs, whether or not they had them when the war began.

A World Congress

The United Nations Assembly should be changed into a real world congress or world parliament. The present system of "one nation, one vote" will not work. Some arrangement must be made whereby nations are fairly represented. That might mean two houses, with one based on literate population, and the other on economic development as a measure of present power. Representatives in both houses preferably should be elected by the people in districts, as we elect representatives to the House. Representatives should be free to vote their own convictions. Such a world congress would tend to divide on issues, instead of on national boundary lines as now occurs in the United Nations Assembly.

The World Congress should then be given power to legislate, to make

laws, within a field limited to questions directly affecting world peace. These laws should apply to individuals and be enforceable against individuals all over the world.

A World Executive

The United Nations Security Council should be changed into a World Executive group, with powers corresponding to the President of the United States. Under the Security Council would be executive departments, including a world FBI, (and whatever armed forces are necessary), to enforce laws passed by the World Congress, and decisions of world courts.

A New World Court

The World Court should be expanded, with lower courts all over the world to interpret world law and to try alleged breakers of world law. Jurisdiction of these world courts should be made compulsory for all disputes between nations, for all suits by citizens of one nation against another nation or its citizens, for all interpretations of world law, and for trying all alleged criminals against world law.

Conclusion

The world faces the greatest crisis in human history. Either we have peace or civilization will be destroyed. As seen by Nobel Prize Winner Harold C. Urey, one of the chief developers of the atomic bomb, and others, the United States faces three choices:

1. Abolishing war through world government and effective control of atomic bombs and other major weapons.

2. Drifting along until Russia and other nations also have atomic bombs. This will almost certainly lead to war and destruction for our civilizaton. If enough of civilization is left, probably world government will then be established.

3. Fighting a "preventive" war against Russia and others unwilling to join effective world government and international control of weapons, *before* they obtain atomic bombs. This would be followed by international policing and world government established by the victors.

Peaceful or Military Path to World Government?

All three choices lead to world government. The verdict of history is that government eventually is established over any effective power area. That area is now the world, and world government is coming, assuming that there will be any world left to govern! The question is whether it will come peacefully, or through a most bloody war with Russia, or through a general atomic war making a shambles of the whole earth. The military path may be so destructive that civilization, and the possibility of world government (which rests on modern methods of communication, industry, etc.), may be set back for many, many years.

Peace Is Possible

The choice is world government or world destruction. Peace is possible if effective world government is established soon enough. Atomic scientists say that Russia will have atomic bombs, perhaps in a few months, almost certainly within the next six years. Unless world government and effective control of weapons is established during this period, atomic disaster is probable. If we are to have peace, world government must come quickly.

It's Up To Us!

To obtain peace and world government, American citizens must study, learn, and work for their coming. As an editorial in the "Winston-Salem Journal" (July 5, 1946) puts it:—"True peace, we believe, must be a peoples' peace, a peace so urgently and firmly demanded by public opinion that statesmen and diplomats cannot deny it to humanity." That is the purpose of this speaking contest, to help our people to understand what is necessary for peace, and to stimulate them to study peace, think peace, talk peace with their neighbors, and create an alert public opinion which will build rapidly and effectively for peace. Survival of our civilization is at stake. It's up to YOU and ME—all of us!

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OBSTACLES IN THE PATH OF WORLD GOVERNMENT

By C. B. Robson, *Head, Department of Political Science, University of North Carolina*

Few if any thoughtful people will disagree with the opinion that if men and their civilization are long to survive they must devise and apply some plan for the preventon of war. Even without the appalling realization of the devastating potentialities of atomic bombs, after six years of intensive destruction, people throughout the world longed earnestly for a protracted period of peace in which to bind up their wounds—physical, spiritual, and institutional. Since the demonstrations of the devastating power of atomic energy, the only possible difference of opinion is as to whether another war would totally or only almost entirely destroy mankind. Obviously there is no point in arguing over this difference, and we can agree that at all cost war must be avoided, that this is the most urgent challenge men have ever faced and that if we do not solve this problem we are doomed and that right soon.

However, the fact that there is an overwhelming necessity to avoid war cannot be urged as a conclusive reason that "world government" is the solution of the problem of organizing the world for the preservation of peace. Those who question the advisability of attempting to establish a world government at this time are neither unconscious of the urgency of the crisis nor are they militarists eager to precipitate another and more fearful holocaust. Many of them are sincere apostles of the ideal of an ordered and peaceful world organized as a lawful and law-abiding community of peoples. They urge and will support every constructive effort toward that end. They merely demand that the various particular suggestions as to means, of which that for the institution of a world government is one, be examined carefully and candidly in the context of the situation actually confronting us in order that the most purposeful, the most practicable and the most effective be adapted.

In this spirit let us examine the proposal that a world government be established now. In the first place, we must note that in fact we find not one but many proposals. This is important for certainly we cannot establish more than one world government and, therefore, differences which exist among the various proposals must be reconciled before the actual operation of such a government can begin.

It can be said that all of the proposals do agree that the world government be federal in form. This means, among other things, that certain spheres of power be assigned to the world government while the rest of the powers now exercised by the various governments of the national states of the world be retained by them. Thus the world government would conform to the pattern of the United States of America. The success in reconciling the conflicting interests of the American states attained within the American federal union is put forward as an argument that the federal form of organization may well be a practicable and effective way of reconciling the conflicting interests and tendencies among the nations existing in the world today.

After the pattern of the United States it is suggested that the world government have a legislative assembly, an executive and a court or system of courts. At this point the suggestions become somewhat vague and are not all in agreement. For instance, there is the matter of representation and voting in the world legislature. Some advocates of world government, not wishing to be dogmatic, are willing to leave this point to be worked out and make only suggestions which they are willing to see modified in the actual ultimate decision. This is magnanimous but not altogether helpful. The question of the composition of the world legislature will certainly have to be settled before the government goes into operation and probably before the various nations now existing will make the final decision to accept a world government. It is scarcely probable that any nation would be willing to enter a federal union without knowing how it would be represented in the controlling organ of that union.

Several principles as to the composition of the world legislature have received wide support among the proponents of world government. There is practically universal agreement that equal representation and equal voting power among all nations, large and small, as in the General Assembly of the United Nations, must be modified. There is also agreement upon the point that the great powers shall not individually and severally retain any such "veto power" as the permanent members of the United Nations now enjoy, but that on the contrary decisions shall be made by a majority vote. These principles are generally, and it seems to me quite properly, regarded as essential elements of a world government worthy of the name or of the confidence of the people of the world as a repository of significant powers. From the point of view of the practicability of bringing a world government into existence, however, it must be recognized that the acceptance of these two principles would require definite and important renunciations both on the part of the small nations and that of the great powers as compared with the positions they now hold in the United Nations and in other international bodies.

For the most part a full apportionment of representation among the nations and portions of the world on the basis of population has not been advocated, although this would seem the logical antithesis of the two principles which all advocates of world government reject. These advocates, quite soundly it seems to me again, have recognized that such differences in cultural level and in experience in the ways of self-government exist among the various peoples of the world that a representation based on population, which might seem at first glance to be most democratic, would actually result in a majority in the world assembly of the representatives of those peoples who have had little or no experience or participation in their own local or national governments. These peoples could scarcely be expected, at first at least, to take the lead in a democratic control of world affairs.

In this situation some advocates of world government have suggested that only these countries which have actually demonstrated a degree of success in the ways of democracy be joined in the federal union which

they propose. This would hardly create the "one world" which seems to be highly desirable at the present time. Others are willing that the principle of representation according to population be modified out of consideration not only of demonstrated capacity for self-government, but of advancement in economy and other techniques of modern civilization and of established position in international affairs as well. Thus the proposals for amendments to the United Nations charter made in accordance with the Declaration adopted by the Conference on World Government held at Dublin, New Hampshire, are that tentatively the United States of America, the Union of Soviet Socialist Republics, and the British Empire be represented by sixty-five members each in the world government assembly, China and France by twenty-five each, and that everyone of the members of the United Nations have at least one representative.

It is not my purpose to criticize these proposals, which are put forward in a commendably undogmatic spirit. The problem of representation is doubtless one which could be arranged, given the will to do so, among the various nations concerned. The actual working out of the various compromises and the acceptance of these by the nations and other interests concerned would, however, at best be a long, drawn out, and difficult process. It may be recalled that precisely the point of representation in the federal legislature was one of the most tenaciously controverted issues in the convention which framed the constitution of the United States. Something of the impact of issues over representation and voting procedures in the present configuation of world affairs may be visualized by remembering how bitterly the questions relating to these points have been contested in the several conferences of foreign ministers, in the meetings of the several organs of the United Nations, and in the so-called Peace Conference held since the end of World War II.

Let us look at this problem from the points of view of the nations which would actually be concerned. Specifically, how would the Union of Soviet Socialist Republics react to vesting significant powers in a world legislature in which it could consistently be out-voted by a combination of the United States, the British Empire, and several of the medium and small "capitalistic" democracies? There is no principle which has been so firmly and clearly laid down by any political entity as the fundamental condition of its foreign policy as the doctrine of the Union of Soviet Socialist Republics that unanimity among the three great powers is the only basis upon which it will cooperate with the rest of the world. In view of the basic differences between its social, economic, and political systems and objectives and those of other nations which in combination possess the preponderance of power in the world, this position is understandable, however much we may decry the principle of retaining a "veto." Whether we understand it or approve of it, however, is not the point; we must, in any case, recognize it as a fact. To fail to do so and to suppose that by persuasion, inducement, appeasement, force, threat of force, or any other means it would be possible in the foreseeable future to bring the rulers of the Soviet Union to submit to a world government endowed with significant powers in whose controlling body it could be outvoted by the so-called "western bloc" of "capitalistic" democ-

racies would be to disregard a factor in the present world situation just as real and certainly as ominous in its potentialities as the atomic bomb itself.[1]

We may also inquire how the proposals for a world legislature based on a principle other than that of one nation, one vote, and unanimity in voting would affect other nations. On the basis of the proposals mentioned above some of them would actually improve their positions at least as compared with the very small states. But, without very much strain on the imagination, we may anticipate how hotly France would contend against a representation of twenty-five as compared with the sixty-five each accorded the three dominant powers. A few other of the protests that would doubtless be forthcoming are those from Mexico at being given only seven seats whereas Poland and Brazil would have nine each; from Turkey at being assigned only five, and from Norway at receiving only four. Other serious complications would arise from the fact that the British dominions including India would have to be content with such portions of the sixty-five seats assigned to the British Empire as could be secured through intra-imperial negotiations.

These probable controversies are not mentioned here with the idea of questioning the wisdom of this particular allocation of seats. They are pointed out merely as illustrations of the kind of intricate and highly explosive issues that would be raised by any suggestions as to apportionment of seats among the nations on a new basis, however logical and purposeful it might be. If we wish to go forward now with a proposal for a fundamental change in the composition of the United Nations Assembly, we must at the very least reckon with a protracted period of heated controversy over the issues involved in this question alone.

Another problem that would have to be worked out in setting up a world government would be as to what powers to assign to the world government and what to reserve to the states or nations as they now exist. Here again the advocates of world government have reached agreement only "in principle"; but before a world government were actually instituted many specific issues would have to be settled. Again we may refer to the proposals emanating from the Dublin Conference on World Government. These suggestions have it that the reconstructed General Assembly of the United Nations should have "the minimum legislative powers necessary for the control of atomic energy and the prevention of war." In pursuance of this principle, they propose that it should have the power "to promote the free exchange of basic scientific information between all nations; to provide for the control of atomic energy to the extent necessary to ensure its use only for peaceful purposes; to eliminate from national armaments all atomic weapons and all other weapons or means adaptable to mass destruction, and that the United Nations shall have exclusive rights thereto for the sole purpose of maintaining world peace and security; to provide for such inspections as the General Assembly may deem necessary in order to protect complying states against the hazards of violations and evasions of any laws under the Article, and to raise by voluntary methods, maintain, support,

1 For an elaboration of this point, see Sumner Welles' "The Atomic Bomb and World Government"; "The Atlantic Monthly" (January, 1946), pp. 39-42, especially p. 40.

and provide for the administration of such inspection forces as the General Assembly may deem necessary for this purpose; to raise by voluntary recruitment, maintain, support, and provide for the organization, command, and disposition of such police forces as the General Assembly may deem necessary to ensure the effectiveness of such inspections and compliance with and enforcement of any laws enacted under this Article; to define the conditions and establish the general rules under which the measures provided for in Chapter VII may be applied to members or other states failing to comply with any laws enacted under this article and to define and prescribe the penalties for crimes committed by such persons against international peace and security, including the planning, preparation, initiation or waging of any war of aggression or any war in violation of international treaties, in a common plan or conspiracy for the accomplishment of any of these purposes; to provide for the apprehension of any individuals accused of such crimes or violations! and to establish tribunals for their trial and appropriate means for the enforcement of penalties against convicted criminals as violators.[2]

I have transcribed these recommendations in full because I wish to demonstrate their rather illusory character. Their specific content is taken largely from the Declaration on Atomic Energy made by President Truman, Prime Minister Atlee, and Prime Minister King which became the basis of the instructions of the General Assembly of the United Nations to the Atomic Energy Commission which it set up in January, 1946, and from the Constitution of the International Military Tribunal in session at Nuernberg, Germany. They involve certain of the basic principles observed in setting up of the federal system by the Constitution of the United States, particularly in the combination of a grant of enumerated powers to a central legislature with the power to enforce the consequent legislation directly upon individuals. A somewhat closer scrutiny reveals, however, that actually only *functions* but no real power would be conferred on the United Nations "government" if these amendments to its Charter were made. It is significant that in comparing these grants of "powers" to the General Assembly of the United Nations with the grants of powers to the Congress in the Constitution of the United States we find that the Congress of the United States was not limited to the use of "voluntary methods" in raising the military forces that it regarded as necessary and that it was given the power to tax, which is not given in these proposals to the General Assembly of the United Nations. It is highly questionable whether without the direct power to raise military forces by either requisition upon the member states or by the drafting of individuals, the United Nations could raise the necessary military forces especially in view of the fact that apparently the member states and other states would retain the power to raise, by whatever method they might choose, and to maintain armed forces with the exception of "atomic weapons and all other weapons or means adaptable to mass destruction." Actually, whereas the General Assembly is to have the function of eliminating these weapons from national armaments, it would in reality have no power in its

2 See the pamphlet "Proposals for Amendment of the United Nations Charter" distributed by the Committee for World Federation, 9 Park Street, Boston, Mass.

hands to effect this function unless and until the nations concerned relinquished them to it. For the maintenance and support of the forces which it might obtain, the United Nations would continue to be dependent upon the funds obtained from the nations as organized governments since it would not have the power to raise money directly by taxation. Certainly the acquisition by the national congress of the power to tax was an essential feature of the transformation of the United States of America from a confederation to the federal government. Even after the adoption of all the amendments suggested in the Dublin conference proposals, the effective military and financial power in the world still remain in the hands of the nations as they are at present severally constituted. A government cannot be said to actually exist unless it possesses the overwhelming preponderance if not the totality of the organized force of the community within whose limits it has jurisdiction. Let us not assume that a real world government can be had at any cheaper price. There is too much at stake to allow ourselves to be deceived by words and formulas. To assign broad and significant functions to an organization while denying it the powers essential to the effective discharge of those functions would be folly that could only lead to failure and complete disillusionment.

The points which have just been made indicate clearly the significant differences between the situation which existed in the United States in 1787, when our present Constitution was drawn up, and that which exists in the world of nations today.[3] At that time the thirteen states, which already comprised the United States under the Articles of Confederation, were not organized separately as formidable military powers. While there were some differences in their social and economic structures, they were essentially similar in political organization and ideas. Even so, considerable difficulty was experienced in arriving at compromises designed to protect the special institutions and interests which the several states wished to safeguard from the potential threat involved in the creation of a central government possessing the preponderance of military force and the power to tax. Furthermore, the federal formula, which was found useful in effecting these compromises, did not in itself insure against a bloody and destructive war between those groups of the states which had the more nearly irreconcilable social and economic interests and institutions.

There are many reasons, I believe, why the problems causing basic frictions and tensions in the world today may be worked out better within the framework of the United Nations, as at present constituted, than within a "world government." In the first place the United Nations is admittedly an organization of independent and sovereign nations. Whatever we may desire in the matter, the fact remains that the world is composed of nations which are sovereign in the sense that they possess respectively effective monopolies of the organized force within their several territorial jurisdictions. Unless and until a world organization actually possesses an effective preponderance if not a complete monopoly of the armed force in the world it will not be a

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3 For a further discussion of these differences, see Edward R. Lewis, "Are We Ready for World Government?", in "The Yale Review" (Spring, 1946), pp. 491-501.

world government and we had better not deceive ourselves into thinking that it is. So long as nations exist, and for better or worse they do exist, we should frankly act through an organization of nations. It is desirable and necessary no doubt to curtail national sovereignty in many directions and to improve the devices for cooperative and concerted international action, but it must be borne in mind that the so-called national state possessing sovereignty in the sense of an actual monopoly of the organized force within its territorial limits is the prevailing form of political organization in the world today and that these national states must, therefore, be the basis for any possible or probable world organization. If any additional proof of that point were necessary we might look at the instances in the world where no such organization exists—as in China or India—and consider whether the absence of an organized sovereign state conduces to peace or not.

Another reason that the United Nations as it is at present constituted is particularly well suited to coping with world problems in the present configuration of world affairs in that it provides opportunities and powers through which the medium-sized and small states may play a role. Each of these nations has the opportunity to put forth its views in the General Assembly; and the Assembly may well develop into an important forum in the formulation of world opinion and world policy. Furthermore, the nonpermanent members of the Security Council will always be those medium-sized and small nations which currently enjoy the confidence of the bulk of medium and small nations as evidenced by their election by the Assembly in which these nations predominate. The medium-sized and small nations have made and can still make important contributions in the cause of law and order at the international level. What these nations seek in the name of their sovereign rights as independent nations more often than otherwise coincides with the interest of the people of the world generally in peace, order, and a decent respect for the rights of others. It should be the concern of any world organization, whatever the type, to preserve and extend the significance of such nations as the Swiss, the Belgians, the Dutch, the Norwegians, and the Latin American nations.

The structure of the organs of the United Nations is, furthermore, well suited to integrating and carrying forward the work of the many permanent and special international agencies in the fields of humanitarian, social, economic, and technical cooperation among the nations of the world. We should not let pessimism blind our eyes to the important accomplishments in these fields some of which (such as the international postal service, to take only one instance) have become commonplace in our lives, nor to the really constructive efforts that are currently in process to meet the increasing needs. We must not allow the terrible potentialities of modern warfare to divert our attention from the importance of united efforts toward the solution of the humanitarian, economic, and technical problems of international relations as a means essential to the realization of the objectives of peace. Through the Economic and Social Council and the various com-

missions and agencies which it is designed to coordinate, much constructive work is now being carried on.[4]

These areas of activity do not hold the dramatic interest of the Peace Conference or the meetings of the Security Council. The fierce conflicts and conspicuous failures of the latter make the quiet accomplishments of the humanitarian and social agencies seem somewhat pallid and unsubstantial. It is not possible to say that a great deal has in fact been accomplished and many difficulties beset the way. Nevertheless, it is precisely these problems that so closely affect the lives of the men, women and children who make up the nations of the world that must be solved if peace is to mean more than the mere absence of armed conflict and if even the armed conflict itself is to be avoided—for with or without atomic bombs men will in desperation turn to force. The establishment of a world government would, of course, not preclude the development of world-wide cooperation in humanitarian, social, economic, and technical matters. Certainly anything that would clear away the tension of threatening war would provide an atmosphere more favorable to these developments. Nevertheless, the period of increased and intensified uncertainty that would be precipitated by a formal proposal emanating from the United States of America to transform the basic structure of the United Nations would surely interrupt the work in these fields seriously.

After all else is said, however, we inevitably return to the question of the prevention of war and the control of atomic energy and other weapons suited to mass destruction. If it could be demonstrated that "world government" were the only means of handling these problems and that "world government" such as is suggested would indeed provide an adequate control of atomic energy and other means of carrying on modern warfare, we should turn to it whatever the cost. As pointed out above, however, "world government" could not be relied upon to do this unless it were actually given considerably more power than even its advocates suggest. The method of handling the problem of atomic energy laid before the United Nations Atomic Energy Commission contains, in fact, all of the proposals of the world government advocates pertinent to this matter worked out with considerably greater refinement of detail but without the deceptive pretention that anything like a government is being set up.[5] This official proposal calls for an atomic Energy Authority which would have exclusive managerial control or ownership of all atomic-energy activities potentially dangerous to world security. This agency, which would be of the same general type as the Tennessee Valley Authority, would also have the power to control, inspect and license all other atomic activities and such facilities for research as would put it in the forefront of atomic knowledge and thus enable it to comprehend, and therefore to detect, misuse of atomic energy. The proposal goes on to provide for elimination of the "veto" of the great powers

4 For a summary, see Trygve Lie, "Work of the United Nations," in "The United Nations Weekly Bulletin, Vol. 1, No. 16 (August 3, 1946) pp. 6-11. This and subsequent numbers of the "Weekly Bulletin" contain current accounts of various specific phases of the work of the United Nations and affiliated agencies.

5 See the *United States Atomic Energy Proposals*, Department of State Publication No. 2560, Washington, D. C.

in the Security Council in matters affecting atomic energy control and for punishment of offenders whether individuals or states in regard to the production or use of materials capable of being used to produce atomic energy. Although even this has been opposed by the Soviet Union (and this may be taken as an indication of what its attitude might be toward a more extensive renunciation of the veto), it remains a definitely practicable approach to the major problem of atomic energy. Here at least is a beginning and a hope. Only if we have the patience and persistence to follow through without giving way either to despair or panic will a lasting and worthy peace be attained.

SUGGESTIONS FOR CONDUCTING THE PROGRAM

By O. K. Merritt

A. Arrangements should be made for suitable sponsorship and the name of the sponsor sent to the University Extension Division, Chapel Hill, N. C. as soon as possible. At the same time $5.00 to cover cost of the gold medal and twenty copies of the pamphlet containing background material, should be sent to the University Extension Division. (Additional copies of the pamphlet may be ordered at $0.15 per copy.)

B. A member of the faculty or a suitable committee should be appointed to work with the sponsor and to be responsible for the successful presentation of the program in the school.

C. The largest possible number of students should be interested in the program and encouraged to participate in it. In many schools, writing essays or making speeches will be part of the regular work in specified classes such as Civics or History. Others not in these classes may also participate, and the best speakers should be chosen for the final public contest.

Announcements in assembly, postings on bulletin boards, personal encouragement, and other methods of increasing the number of participants are very useful.

D. Contestants should be encouraged to use other literature in addition to pamphlets furnished. Such material must be made available to all contestants in the school.

E. Public interest in the program should be stimulated through the local press, civic clubs, radio, and by public display of the medal and of posters prepared by students.

F. Arrangements should be made for the contest to be announced in each church in the community. Many pastors, if supplied with a copy of the pamphlet no doubt would be willing to preach on the subject.

G. Other interesting features for the final public contest should be planned, such as music, display of best student posters, etc.

H. Arrange for the local press to carry a story on the contents of the final speeches, and the winner.

I. An ample supply of suitable ballots should be prepared—blank pieces of paper uniform in size and material (3x5) will be suitable.

J. The order in which contestants appear on the program should be determined by lot.

K. A committee should be appointed to count the votes. The committee should be instructed to divide the ballots and work in pairs, one person reading the ballots and the other keeping tally. The committee should be large enough so that ballots can be counted and the winner announced promptly. The contestant receiving the largest number of votes on first ballot is to be winner. Duplicate medals may be awarded in case of a tie. The actual number of votes received by individual contestants should not be divulged.

L. The following announcements should be made to the audience at the beginning:

1. Primary objective of the program.
2. Committee appointed to count the ballots.
3. Details of balloting procedure. (Each person 18 years of age or over will be handed one blank ballot on which he will write the name of the speaker whom he thinks made the best speech. Then he will fold his ballot and pass it to the person collecting them.)
4. The winner will be the contestant receiving the greatest number of votes on the first ballot. Duplicate medals will be awarded in case of a tie.

M. Introduce each speaker to the audience, giving subject of the speech, and his or her name very plainly. Name placards in front of the speakers may help the audience in its voting.

N. When the last contestant finishes speaking, *one* ballot should be distributed to each person in the audience entitled to vote. Then the ballots should be promptly collected and counted.

O. Music or other entertainment should be provided while the ballots are being counted.

P. When the committee is ready to report, the sponsor or his representative should present the medal to the winner.

Q. A report should be made promptly to the University Extension Division giving the total number of votes cast in the contest, name of the person winning the medal, number of speakers participating and any suggestions for improving the program. A copy of the winning speech is requested for possible later publication or broadcast.

UNIVERSITY OF NORTH CAROLINA
EXTENSION BULLETIN

VOL. XXVI JANUARY, 1947 NO. 5

TENTH ANNUAL
NORTH CAROLINA SCHOOL ART EXHIBITION
1947

FOR ELEMENTARY SCHOOLS IN NORTH CAROLINA

Published six times a year, July, September, October, November, January, and March, by the University of North Carolina Press. Entered as second-class matter October 19, 1921, Chapel Hill, N. C.

The University of North Carolina, Chapel Hill
The Department of Art
The Extension Division

and

The Woman's College of the University of North Carolina, Greensboro
The Department of Art
The Department of Public Relations

Cooperating Organizations
The North Carolina Federation of Women's Clubs
The North Carolina Division of the American Association
of University Women

Special Check List

Before submitting entries in this exhibition, please check to see that—

1. You are properly classified as to unit (city or county).
2. You have mounted all entries (except models, sculpture, etc.), on 22" x 28", or 18" x 24" cards.
3. Duplicate entry blanks have been properly filled out for each entry.
4. Each entry has a blank affixed to it and a duplicate blank mailed to the Exhibition Committee.
5. The correct amount of entry fees is sent with the duplicate blank.
6. Shipments are carefully packed and labeled on the outside with the name and address of the sender.
7. Your entries reach Chapel Hill by 5:00 o'clock p.m. of April 14, 1947.

Tenth Annual
North Carolina School Art Exhibition

Elementary Grades

The purpose of this exhibition is to promote the teaching of art and to encourage art production in the elementary schools of North Carolina. Work included in this year's North Carolina School Art Exhibition is *limited to elementary grades (1 through 6).*

By circulating the exhibition after the initial showing, it will be possible to acquaint both teachers and pupils with the work being done in other schools and to stimulate both art teaching and art production.

Dates of Exhibition

The exhibition will be held: May 3 through 25, 1947, at Person Hall Art Gallery, Chapel Hill.

Last Day for Making Entries

All entries for the exhibition must be in the hands of the committee, Chapel Hill, N. C., by 5 o'clock p.m., Monday, April 14, 1947. (Send only work for grades 1 through 6.)

Circulating Exhibition

All work accepted for exhibition will be retained by the Exhibition Committee for circulation as a traveling *exhibition* through North Carolina schools during the year 1947-48. Exceptions will be made in the case of works which are not suited to the handling involved in the circulation of the *exhibition.*

All schools wishing to schedule exhibitions should make a reservation as soon as possible. Each exhibition center will be responsible for the expense of packing and hanging and of transportation from the preceding exhibition center. It is suggested that schools obtain the sponsorship of the local Woman's Club or the local branch of the American Association of University Women.

1945-46 Exhibition

The 1945-46 Exhibition is now available. To obtain information, write to the Department of Art, Woman's College of the University of North Carolina, Greensboro, N. C.

General Rules for the Exhibition

1. Work done since last exhibition by students of elementary schools (grades 1 through 6) shall be eligible. Private and parochial schools, as well as public schools, shall be deemed eligible to participate, but the grades participating must correspond closely to grades 1 through 6 in public schools.

2. Only works which are selected by the judge shall be exhibited.

3. All elementary work submitted shall be divided into two distinct units of competition determined by whether the school belongs to a city administrative unit or a county administrative unit. All private and parochial schools shall be classed with the city administrative units.

4. There is no restriction upon the number of entries which one school may submit.

   It is advised that the problems be taken up as regular classwork, and that the individual entries be sent as a group in order to save costs; but this procedure is not obligatory.

5. All entries must be original art work, not copies. Advice and criticism by members of the faculty will not be considered as affecting the originality of entries, but the students themselves must be responsible for the main conception and the execution. Any indication of a violation of this rule will exclude the work from the exhibition.

6. All entries which are in flat pieces should be submitted on 22″ x 28″, or 18″ x 24″ mounts but should have no further matting or framing.

7. Water colors and pastels must be matted but not framed.

8. The mats should be simple; this feature will be considered in the judgment.

9. All drawings in pencil, ink, crayon, or charcoal, and all prints must be mounted 22″ x 28″, or 18″ x 24″.

   NOTE: *Only one drawing, print, or design should be put on a single mount.*

10. Charcoal drawings should be thoroughly fixed to prevent smudging.

11. Pastels should be protected by heavy cellophane securely attached to the mat on all edges.

12. An entry blank must be filled out and attached to each entry.

13. A duplicate entry blank must be filled out for each individual entry. One of the blanks must be attached to the entry and the other mailed to

    The Exhibition Committee
    Department of Art
    University of North Carolina
    Chapel Hill, N. C.

    NOTE: Entry blanks must be secured from and returned to the Committee.

14. An entry fee of fifteen cents will be charged for each piece of work entered.

15. Entry fees must be sent with the entry blanks when they are mailed.

16. If fees are paid by check or money order, the check or money order

should be made payable to the N. C. School Art Exhibition Committee.

17. All entry blanks and fees must be in the hands of the Exhibition Committee at Chapel Hill by 5 o'clock p.m., Monday, April 14, 1947.

18. All entries should be sent with charges prepaid. (See No. 13 for shipping address.)

19. All packages should have the name and address of the sender clearly written on the outside.

20. All objects are shipped at the risk of the sender. Work should be carefully wrapped, crated, or boxed. *The cooperating departments cannot be responsible for any loss or damage, though all possible care will be taken.*

21. All entries accepted will be retained for the circulating exhibition (see page 3), but will be returned at the close of the circuit, *charges collect.* Works excluded from the traveling exhibition because of size, shape or fragility, and all works not accepted for the exhibition will be returned by June 9, 1947, *charges collect.*

CAUTION: All communications concerning this exhibition should be directed to the Exhibition Committee (see No. 13 for complete address).

Judgment and Awards

The examination of art entries shall be conducted in a thorough manner by a judge from outside the State of North Carolina. The judge this year is Miss Belle Boas, Director of Education, The Baltimore Museum of Art. The judge shall have the sole power of selection of works to be included in the exhibition and the sole power of making awards.

The work of city administrative units and county administrative units shall be judged separately.

The judge will reserve the right to refrain from granting any awards, if in her opinion the work submitted is not sufficiently high in standard.

Certificates of Award

Certificates will be awarded by the North Carolina Federation of Women's Clubs to all exhibitors whose work is selected for the exhibition.

CLASSIFICATIONS OF ENTRIES

ELEMENTARY SCHOOL (Grades 1 through 6)

Illustration

Any painting medium, chalk, crayon, or cut paper may be used. (It is suggested that each picture be labeled as to the subject illustrated.)

Posters

Any medium may be used: paint, chalk, block printing, etc.

Modeling and Carving

Clay, wood, plaster of paris, or stone may be used.
Sculpture may be in the round or in relief.

Watercolor Painting, Tempera, Show Card

Opaque or transparent colors may be used.
Subjects may be landscape, figures, portraits, still life, etc.
Painting must not exceed 22″ x 28″ in size.

Prints

Any print medium may be used: linoleum, wood, monoprint, etc.
Any subject may be used.

Costume Design

The designs may be for plays, pageants, personal use, etc., and may be in any color medium. Models may be used.

Portraits

Any medium may be used.

Interior Design

The designs may be for interiors of homes, offices, restaurants, schools, stage sets, etc. Either color drawings or models may be submitted.

Surface Pattern Design

Patterns must be suitable for textiles, end papers, wrapping paper, etc.
Linoleums or wood block prints, oil, opaque watercolor, crayon, chalk, etc., may be used.

Design

Single units, abstract or realistic in treatment, rendered in any medium of expression are eligible.

Leather Tooling, Bookbinding, Metal Work
Lettering

Construction (Such as toys, marionettes, etc.)

Pencil Drawing

Original black and white pencil drawing.

Ink Drawing

Original ink drawing. This class includes pictorial work in black or colored inks or in a combination of both, executed in line or wash, with pen or brush, or with a combination of several techniques.

Crayon Drawing

Original pictorial work in crayon. Wax, conte, lithograph crayons, and colored pencils will be considered in this class.

Charcoal Drawing

Original pictorial work in charcoal.

Chalk or Pastel Drawing

Original pictorial work in chalk, pastel, or any other dry pigment.

Prints

Original work in linoleum or woodblock printing, etching, dry point, etc. Prints may be in black and white or in color.

Sculpture

Original work in sculpture. Sculpture may be in the round or in relief. Material may be chalk, stone, wood, plaster, bronze, or other hard composition. The entry must not be fragile. Soap sculpture will not be accepted.

Ceramics

Original work in ceramics. Examples of kiln-fired vases, tiles, bookends, lampbases, bowls, plates; or work in the round or in relief; or other objects modeled from clay will be considered.

Entry Blanks

Please state below the number of entries your school will make. On receipt of the "Request for Entry Blanks" below, the Art Exhibition Committee will send you the desired number in duplicate form—one blank to be attached to each entry and a duplicate to be mailed to the Committee with the proper fee. These requests should be mailed by March 31, 1947.

Request for Entry Blanks

To the N. C. School Art Exhibition Committee
Department of Art
University of North Carolina
Chapel Hill, N. C.

Please send us blanks for.....Entries.

.....

(School)

.....

(Address)

.....

(Signature of Superintendent, Principal, Art Supervisor, or Art Instructor.)

MAY 1

UNIVERSITY OF NORTH CAROLINA
EXTENSION BULLETIN

Vol. XXVI March, 1947 No. 6

HARRISSE'S ESSAY ON HIGHER EDUCATION FOR SOUTH CAROLINA

Edgar W. Knight

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MONEY ORDERS, CHECKS, OR STAMPS ACCEPTED
ADDRESS: UNIVERSITY EXTENSION DIVISION,
CHAPEL HILL, N. C.

UNIVERSITY OF NORTH CAROLINA
EXTENSION BULLETIN

VOL. XXVI MARCH, 1947 No. 6

HARRISSE'S ESSAY ON HIGHER EDUCATION FOR SOUTH CAROLINA

EDGAR W. KNIGHT

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Entered as second-class matter October 19, 1921, Chapel Hill, N. C.

Harrisse's Essay on Higher Education for South Carolina*

EDGAR W. KNIGHT
University of North Carolina

HENRY HARRISSE was a Frenchman, who is best known as bibliographer and enthusiastic student of the literature of the discovery of the New World. He was born in Paris about 1830, came to this country and for a time taught in Mount Zion Academy in South Carolina, received in 1853 an honorary degree of master of arts from the University of that State, was an instructor in French in the University of North Carolina where he also studied law, taught for a brief period in Georgetown University, Washington, D. C., practiced law in Chicago, was later in business in New York, and later still returned to Paris. While in New York he formed a very close friendship with Samuel L. M. Barlow, influential lawyer, bibliophile and book-collector, and in 1883 wrote Barlow from Paris a long and confidential autobiographic sketch or letter which provides an important part of the authentic information available on this strange man.[1]

Harrisse was very much interested in education, seems to have been quite well acquainted with old and current discussions of that subject, and while in Chapel Hill wrote two essays on collegiate education. One of these was written in 1854 for the prize offered by Normal College, which developed into Trinity College around which Duke University was later established. This essay led Harrisse into a lively and interesting controversy which until recently seems to have received no attention in the educational history of North Carolina.[2] The other essay was published at Columbia, South Carolina, in 1857, "at the expense of" William C. Preston of that State, to whom it was addressed. A copy of this essay is also in the Manuscripts Division of the New York Public Library and a microcopy is in the library of the University of North Carolina. A copy is in the South Caroliniana Library of the University of South Carolina. Other libraries in the State seem not to possess copies of this essay.

* Except where otherwise indicated footnotes are by Professor Knight.

[1] This letter is the property of the New York Public Library. A photocopy is in the University of North Carolina Library.

[2] The original of this essay is the property of the New York Public Library which gave me permission to use it. The essay was edited and published in *The North Carolina Historical Review*, January, 1947, under the title "Henry Harrisse on Collegiate Education" which tells about his row over the essay contest conducted by Normal College and also a bit about his difficulties with the Trustees of the University of North Carolina with whom he seems to have got along very badly. E.W.K.

Because of its moderness and its treatment in the 1850's of educational problems and issues that persist today, it has seemed desirable and useful to reprint the essay. Clearly an adaptation of the one Harrisse wrote for the Normal College prize it was nevertheless, despite its title, an attempt to answer the question: "What is the character of the 'literary institution best adapted to the present wants and interests of South Carolina' "? as Harrisse himself says.

Written nearly a century ago and presumably in Chapel Hill the essay seems almost prophetic. Many of the educational conditions which Harrisse criticized in 1857 are under criticism now and some of the stubborn problems in colleges and secondary schools which he then pointed to continue to plague educational workers and sometimes seem to defy solution. Who nowadays can deny Harrisse's statement that the excellence of an educational institution should never "be confounded with its *external prosperity,* estimated by the number of those who flock to it . . ."? Who can deny "that there is not perhaps a single evil in the whole catalogue of collegiate nuisances which so loudly calls for censure and immediate extirpation" as the admission of deficient and the graduation of "ignorant students"? Readers of this essay will note the emphasis on higher educational standards; the perspective for the responsibility and obligation of trustees or governing boards of educational institutions; the need for superior qualification and adequate salaries for teachers; the importance of general education on which there has been in recent years such a vast if sometimes vapid wordage in this country; the insistence upon thoroughness in the mother tongue and the emphasis upon history in the collegiate curriculum. Impressive also is Harrisse's familarity with educational treatises and discussions of educational issues in this country and abroad.

July, 25, 1857

To the Honorable William C. Preston:

SIR: Incited by the hope of being able to promote the efficiency and welfare of our College, I have devised a scheme, which I respectfully submit to your consideration. Whether it will ever be carried out—and if so, prove successful—is a question which time alone can solve. Suffice it to say, that I sincerely believe in its practicability; and to the stern critics who will not fail to censure the freedom of my remarks, or carp at the boldness of the following project, I can only answer, in the words of the eminent Dr. Thorn-

AN ESSAY

ON

THE LITERARY INSTITUTION

BEST ADAPTED TO THE PRESENT WANTS AND

INTERESTS OF OUR COUNTRY.

"For if you will have a tree bear more fruit than it hath used to do, it is not anything you can do to the boughs; but it is the stirring off the earth, and putting new mould about the roots, that must work it."—BACON.

—COLUMBIA, S. C.,
STEAM POWER-PRESS OF R. W. GIBBES.
1857.

Title Page of the Pamphlet Containing Harrisse's Essay

well, that "in the effort to realize the conception of a perfect education, we are apt to forget that there is no such thing as absolute perfection in the matter, that all excellence is relative, and that the highest recommendation of any plan is, that it is at once practicable and adjusted to the wants and condition of those for whom it is provided."

H. H.

LETTER I.

JULY 25, 1857.

I. All our universities and colleges, from Austin[1] to Yale, and from Wake Forest to St. Vincent's, seem to have adopted a stereotyped curriculum and uniform mode of instruction. Is it that these preferred studies possess specific virtues altogether denied to the other branches of human learning, and that without the pale of certain authors and syntax, no science, no literature, ever can in an equal degree train the mental powers, impart desirable knowledge, and at the same time "promote the graceful and ornamental accomplishments" of the student? If it be so, we must, indeed, lament the poorness of our resources, and strive by all means to exact a little more from our common ingenuity.

To impeach the importance of classical studies, is out of the question. When properly and fully taught, and under certain circumstances, they are emphatically the most profitable of all studies. They train several important faculties, and lay open to our eager curiosity the lores of ancient philosophy, poetry and eloquence. Through them we may form our taste, develop our imagination, and acquire the only true notions of literary excellence. To obtain such results, however, it is absolutely necessary that the classics should be studied constantly, fairly, and thoroughly—partial or interrupted application being altogether worthless, if not hurtful. "A little elementary instruction," says Cousin,[2] "is always

[1] Reference to "Austin" and "St. Vincent's" may not be clear. Austin College was established in Texas in 1849, by the Presbyterians of that State. The University of Texas, located at Austin, was not provided for until 1858. Wake Forest College in North Carolina was founded by the Baptist State Convention of that State in the early 1830's and chartered in 1838. Vencentians or Lazarists, founded in France in the seventeenth century for missionary and charitable purposes, became identified with Catholic secondary and collegiate education in many countries and established institutions in several places in the United States. Patrick J. McCormick, S. T. L., "Teaching Orders of the Catholic Church," in Paul Monroe (Ed.), *A Cyclopedia of Education*, V, 529.

[2] Victor Cousin (1792-1867), French philosopher and educator, member of the faculty of the University of Paris, member of the Council of Public Instruction in the Cabinet of Francois Pierre Guillaume Guizot, and minister of public instruction in France and director of the Normal School. He studied the school system of Germany in 1831 and published his observations and conclusions under the title *Rapport sur l'etat de l'instruction publique en Prusse*, which is among the most important of all reports on educational conditions in Europe in the second quarter of the nineteenth century. It was largely because of this report that the French educational law of 1833 was enacted. The report was translated into English and published in England in 1834, reprinted in New York the following year, and had considerable influence in this country, especially in Massachusetts and Michigan. See Edgar W. Knight (Ed.), *Reports on European Education*, 114-22.

good for something, but a little Latin and Greek, badly taught, can be of no advantage, and may become a source of great inconvenience."

We justly wonder at the advanced state of German scholarship; but is any one so little informed on the subject, as to imagine that the course followed at Wersburg, Frankfort or Grimma, is at all similar to that pursued in Yale or at Princeton?

At Eisenach, Schulpforta, or any of those gymnasia, where the German youths are educated, the students enter the institution between the age of ten and twelve, having already acquired a certain knowledge both of Greek and Latin,—not so extensive, to be sure, as that required for admission into the Freshman class of our Colleges, but certainly more accurate and better digested. A period of seven years is indispensable to go through the whole course; and, independently of the time devoted to the preparation of the lessons under the immediate and constant supervision of responsible monitors, they average not less than thirty-two recitations of one hour each a week, whilst in our Colleges, they never have more than sixteen.[3] In the first and second years, the German student has only four recitations in Latin, and two in Greek, a week; but in the third year the number rises to fourteen in Latin, and five in Greek; in the fourth, twelve of Latin, five of Greek; in the fifth, eleven Latin, six Greek; and in the last year, nine Latin and six Greek. That is to say, 3,000 lessons in the dead languages. In addition, not only the Latin language is spoken, but in the latter part of the course all the exercises are held in it.[4]

No student can ever pass from a lower to a higher class without sustaining a very strict examination; and it does not follow, as with us, because he has been two sessions a Sophomore, that he must, as a matter of course, enter the Junior class. Nor do long vacations ever break the link. And yet, all those labors and exertions are only preparatory to higher studies. After being graduated at the gymnasium, the student—if he really designs to master Greek and Latin—enters the university, and goes through another course in the *Seminarium Philologicum,* which requires several years more, it is true, but enables him at last to appreciate the beauties of a Homer or the eloquence of a Demosthenes. Then, and only then, the object of his classical education is attained: the treasures of ancient literature are placed within his reach.

[3] At the celebrated St. Thomas Schule, of Leipzig, the first class has even so many as forty-one recitations a week. [Author's note]

[4] Cousin, who heard one of those recitations at the gymnasium of Weimar, where they had to translate and explain in Latin, a passage from Plato's Republic, says, that the Professors expressed themselves "correctly and forcibly," and the students "fluently and with clearness." [Author's note]

Some will answer that the German mind is naturally slow, heavy, turbid, and that it requires such constant efforts to infuse into it even the rudiments of any kind of knowledge. We beg leave to reply that the Germans are neither slow nor turbid; misty they may be, and probably are, but it is only in their metaphysical, and not in philological researches or the elucidation of classical authors. If they study the dead languages with so much diligence, it is because they are well aware of the necessity of understanding perfectly all the refinements, spirit, and genius of a language. whether dead or living, in order to discern the merit of its literature; and as they have found from experience that arduous studies, constant efforts and unremitting attention, are absolutely required to become well versed in the classics, they succeeded in framing a system of education which cannot fail to initiate the German student into the excellences of the Greek and Latin writers.

Admitting even, were it only for the sake of argument, that the Teutonic youths are dull and altogether unable to acquire any kind of classical learning, unless patiently hammered into their heads; to render this objection at all plausible, it will still be necessary to prove either that so much Latin and Greek is not necessary to appreciate Thucydides and Tacitus, or that with *our* system of education, and the time *we* devote to it, our scholars acquire as much learining as the Germans. To refute this, we need only compare the Bowdoin[5] prizes at Harvard or the Berkleian premiums at Yale, with the extempore compositors in Latin of the *abiturientenexamen* at any of the one hundred and forty gymnasia of Prussia. Why, let any impartial observer who claims to understand any thing at all about such literary performances, look over the Latin salutations of the First Honor men of our Colleges, just as they are handed in to the Professors for revision!

Shall we also tax the English and French with slowness of intellect? Yet, they devote several years more than we do to their *studiae humanoriae*. At Henry IV, St. Barbe or Stanislas, the pupil is likewise subjected to a *"sexennium."* Ten hours a day, six days in the week, and eleven months in the year, are wholly occupied with study. We do not recollect at present the exact number of recitations in the dead languages, but it certainly does not fall short of that of Pforta or Ratisbon. As for Oxford and Cambridge,

[5] The Bowdoin Prizes at Harvard under the bequest of Governor James Bowdoin, A.B. 1745: "For the advancement of useful and polite literature among the Residents as well graduates as undergraduates of the University . . ." These prizes "may be conferred for original dissertations in English, Latin, or Greek, or for translations of prescribed passages from English into Latin or Greek." The Berkeley scholarships and prizes at Yale were offered through income from gifts by George Berkeley, who came to Rhode Island in 1729 and who conveyed to Yale College his estate near Newport as a foundation for graduate scholarships and undergraduate prizes.

everyone knows through what ordeals the gownsman has to pass in his classical triposes[6] and previous studies under private tutors, before getting his bachelorship. A mere perusal of the questions asked for the Easter-term examination of the Freshman at Trinity, would be of itself sufficient to chill the enthusiasm of our proudest Seniors.

We would not have insisted, had it not been premised by very able and consciencious advocates of the study of the Latin and Greek languages in this country, as superior means of promoting mental habits, that the maturity of these habits is to be measured "by the degree and accuracy of the knowledge."

In point of natural abilities, it is incontestible [*sic*] that the Americans are not inferior to the Europeans. The comfort which our people enjoy—the extensive diffusion of elementary knowledge among all classes—and the freedom of our political institutions, cannot but promote the further acquisition of learning. In proportion to their population the United States possess, perhaps, a greater number of universities and colleges than any one trans-Atlantic State, except Prussia; our students commence their education at a more advanced age, and with a maturity of mind far beyond the Germans or French. How is it, then, that notwithstanding such great advantages, and the number of young men we have already educated in the last fifty years, and who devoted themselves to teaching or literature, America has produced so few classical scholars whose philological and archeological labors ever drew or merited the approbation of competent and impartial judges,—whilst we can justly boast of astronomers and mathematicians, engineers and geologists, equal in many respects to any in Europe?

Why are most of our original editions of the classics so inferior, and whenever English or German reprints, always clogged with such frothy notes? Occasionally, we are graced and refreshed with an oration, chaste in its style, simple in its structure, and really exquisite in its classical allusions; but as a rule, why do we find the speeches of many of our statesmen, the orations, lectures and addresses delivered by our literary characters, uniformly interlarded with trite Latin quotations, derived no doubt from a Watson or a Bohn,[7] and hacknied historical citations, which the most unpretending Sophomore of a Prussian high-school would blush to quote? It is in such palpable examples, if no where else, that we must look for the state of scholarship in a country. Those alone can tell

[6] Final honors examinations in the classics.

[7] Henry George Bohn (1796-1884), British publisher of editions of standard works of history, science, archaeology, theology, and the classics, and of translations, and also dealer in rare books.

whether the American system of education really quenches our thirst at what the newspapers incessantly invoke and call the "Pierian spring."

How many of our graduates can read the ancient authors of Rome and Athens in the original, with sufficient ease to enjoy and appreciate them? Alas, but few! and these owe their rare proficiency to subsequent studies and congenial pursuits. If, then, we do not initiate the American students into those sole repositories of undoubted literary excellence, are we more successful in training their minds through the medium of those very classical studies?

That this can be done, and perhaps more successfully with Thucydides or Juvenal than Euclid or Laplace, is an opinion which Sir William Hamilton and Professor Pillans[8] have very ably defended. But do *we* do it? Can *we* ever do it? Do *we* employ the proper means of doing it?

In what consists our method of teaching the classics? Only in endeavoring to get the student to give the bare meaning of a text. Whether he learns it through the previous reading of an obliging class-mate, his own guessing powers, or the memorizing of the passage in one of Mr. Bohn's literal translations, seems to be of no moment to his instructor. In fact, those translations are so openly and universally used that we venture the assertion that, in nine out of ten of our colleges, if a Professor sees any of them in the book-case, upon the table, or in the hands of the student anywhere except in the recitation room, not only he does not reprimand him or seize the book, but does not even consider it a breach of discipline, worth the trouble of a verbal report to the Faculty. The instructors are so well aware of the fact, that they have contrived a certain plan, not to check the evil; this seems to be beyond their power,—but to mitigate its effects in a very peculiar manner. They give lessons of four pages instead of two, as if the quantity ever could in any way compensate for the quality, or as if their main object was to obtain the reading of a certain number of lines with out any regard whatever to the *modus operandi.* Now, if the study of the dead languages forms the bone and sinew of our curricula, because of its specific properties, when exclusively applied to the training of the mind, who can deny that in this case, the use of

[8] Sir William Hamilton (1788-1856), Scottish metaphysician and author of *Lectures on Logic* and *Dicussions in Philosophy, Literature and Education.* Professor James Pillans was born in Edinburgh in 1778, received his education in the Edinburgh High School, of which he later became rector, and in the University of Edinburgh in which he served for many years as professor of humanity and laws. As rector of the Edinburgh High School he introduced the monitorial system of instruction which attracted students and observers from many countries. Pillans wrote on educational subjects and was the author of many textbooks.

translations, whether authorized or illicit, baffles the chief purpose of education, and mocks both teachers and students?

When we say that the study of Latin and Greek exercises and invigorates the mind in a greater degree than some other branches of learning we attach to the word "study," a meaning somewhat different from that generally understood by our American instructors. A mere verbal translation, often in imperfect or disconnected English, with grammatical answers now and then, is NOT the kind of study calculated to improve greatly the pupil's mental powers. The mind, to derive any profit from a classical course, requires constant appeals to other means of far greater efficacy. Frequent transpositions from Latin into Greek, and from English into Latin; daily written exercises and frequent compositions of verses in these languages; immediate translations into Latin from an English text read aloud; extempore and exegetical readings; turning different dialects into each other, and English verse into Iambic trimeters, &c. Such are among the multifarious means to which the teacher must resort, if he has truly in view the training of his pupil. It is the method pursued at Leipsig, Paris and Oxford.

Can we, in America, where our children, from their very infancy, contract obdurate habits of physical and mental independence; where any kind of restraint is considered a tyranny—a course of four years already too long—and the age of fourteen entirely too early for collegiate instruction—can we ever think of introducing such a system and its necessary train of restrictions and innovations? For, how could we pretend to teach the languages in this way, unless a change of diet, studies in common and under the watchful eyes of rigid tutors, a confinement and catalogue of severe penalties, such as no American youth would ever submit to, were also introduced? Yet, we candidly believe that one is subservient to the other, and in this, lies the secret of the strict discipline so uniformly enforced in all the gymnasia and colleges of Europe.

II. We have neither the time nor the space to discuss, at length, whether the mind of the student should be especially and wholly trained in view of the particular career he intends to follow in after life; or whether there ought to be only one training for all students, without regard to the profession which they may ultimately adopt. It seems to us, however, that although a physician requires a mental discipline altogether different from a lawyer, a merchant from a farmer, and an engineer from a politician, the training, preparatory to the acquisition of the specific facts required for the successful prosecution of a profession, should be general. It is necessary to

all, and such as no man, whatever be the nature of his ulterior aim, can dispense with.

But how long, and how far, must the student be subjected to this general training? Is it necessary that the totality of the four years spent in College should be devoted to it? If so, where and when is he to acquire the knowledge, the bare knowledge, so indispensable to his success in life? For, great as our respect for Sir William Hamilton may be, we must confess that we do not understand his assertion that "the mere possession of scientific truths, for its own sake, is valueless." Whatever may be our motives for acquiring these scientific truths, it is nevertheless evident that they are necessary to man at all times. How can we realize the idea of reason without assimilating to it the idea of knowledge? You may easily fancy a mind without knowledge, as you sometimes think of steam-engines, unsupplied with steam, or the circulating organs deprived of blood; but from the moment you speak of locomotion, of circulation, of reason, you must add the idea of vapor, of fluid, of knowledge, *i. e.,* of "scientific truths."

We deem it dangerous to leave it to the student to acquire those scientific truths by himself, or when and where he pleases. Students should be considered, not as they *ought* to be, but as *they are* and ever will be. As soon as rid of Collegiate shackles, and often before, they launch at once into the study of a profession. The intended lawyer enters an Attorney's Office, studies the theory and practice of the law, hastens to obtain his county-court license; and without any further preparation, assumes all the duties and functions of active life. The medical student follows a similar course; and the aspiring engineer, whether mentally and bodily prepared or not, immediately enrolls himself for a surveying expedition.

On the other hand, has it been fairly tested whether "the instruction in things subservient to the purpose of external accommodations," as Aristotle calls them, might not be rendered an excellent mental exercise? And if so, why not prefer such instruction, since it may simultaneously train the mind and impart the necessary knowledge which the student is not expected to acquire at College, and cannot obtain afterwards—the calls of active life being too exclusive?

But because the methods of fluxions and ratios are not of paramount use to an agriculturist, or the reduction of hypotheticals at all necessary to the welfare of a physician, must we thrust logic and the higher mathematics out of our curriculum or establish

separate Colleges for the training of those who expect to pursue different professions? This would be impracticable, if not absurd; still let us not be too exclusive, and endeavor so to frame our course of studies, as to suit as much as possible the interests of *all*; which, at present, is not altogether the case.

III. The necessity of a change in our Collegiate system of education is no new topic; and even in those very States where they are so proud of their literary institutions, many a severe pamphlet has been written to censure the course followed in the Colleges of New England. We have none of these at hand, but by referring to President Wayland's Report, to the corporation of Brown University, or to Mr. George Ticknor's[9] remarks on the changes in Harvard College, the reader will see that we do not stand alone in the opinion which we so freely express.

"Who," asked the celebrated historian of Spanish literature, "who in this country, by the means offered to him, has been enabled to make himself a good Greek scholar? Who has been taught, thoroughly, to read, write and speak Latin? Nay, who has been taught anything at our Colleges, with the thoroughness which will enable him to go safely and directly to distinction in the department he has thus entered, without returning to lay anew the foundations of his success? It is a shame to be obliged to ask such questions; and yet there is but one answer to them."

Although expressing ourselves rather frankly, and quoting authorities, the language of which might be taxed with surliness and vehemence, we do not mean to cast a slur upon this or that particular College, either in South Carolina or out of it. Upon the whole, the institutions in our State are, perhaps, superior to any in the country. The College at Columbia has educated many men, who afterwards became eminent in the walks of science and literature. Broken up, decried, as the South Carolina College may be, we do not hesitate to assert that a much loftier spirit pervades its deserted halls than has ever been known to breathe within many of the neighboring universities, which, although now thronged with

[9] Francis Wayland's *Report to the Corporation of Brown University, on Changes in the System of Collegiate Education.* Providence, R. I.: 1850. In 1842 Wayland had published at Boston his *Thoughts on the Present Collegiate System in the United States.* The Report recommended some rather radical changes in the collegiate program; and both of these publications stimulated considerable discussion in this country. Wayland, who was president of Brown University for many years, was an energetic advocate of mental discipline in education, a theory which American psychologists are said to have adjourned or prorogued or to have thrown under a heavy cloud of suspicion, beginning around 1900.

George Ticknor was professor of Spanish language and literature at Harvard. His *Remarks on Changes Lately Proposed or Adopted in Harvard College,* published at Boston in 1825, was one of the earliest arguments for reform in the collegiate curriculum in this country. Ticknor was greatly impressed with the ideals of German scholarship and thoroughness and its intellectual freedom.

students, fail to impart to their motley crowds those high notions of truth and philosophic excellence, which a Maxcy, a Preston, and a Thornwell,[10] possessed, taught, and vindicated. But we must be permitted to confess that neither South Carolina nor any other State in the Union possesses that kind of institution, which, having in view both the mental training and the acquisition of useful knowledge, can, through a particular system of instruction, so train its pupils as to enable them to study, afterwards, any profession whatever with better success; impart the indispensable knowledge which they have not the opportunity of studying when out of College; and at the same time, give to all those who expect to lead the life of independent farmers, merchants and citizens, an education which may become from the moment they graduate an inexhaustible source of literary enjoyment and practical information. We are well aware that there is hardly a College in the United States which does not lay claim to such a system; but experience has shown, and we hope to have demonstrated, that such is not the case—however strenuous the effort and meritorious the intention.

IV. The range of Collegiate studies is far from being extensive, nor it it so perfect as not to admit of a change. It should be well then to inquire whether some new studies might not be introduced; others, left out so as to obtain a greater allowance of time, or elevated in point of importance, and caught in a way better calculated to leave a permanent impression upon the pupil's mind. What are the studies that must be abandoned, which ones should be introduced in their stead; what improvements might be successfully applied in the mode of teaching; what is the system of education best calculated to improve the student, and at the same time leave a residue of knowledge, both applicable and useful; in fine, what is the character of the "literary institution best adapted to the present wants and interests of South Carolina"? Such are the questions which we propose to discuss and solve in our next letter.

[10] Jonathan Maxcy (1768-1820) was a graduate of Brown University and served as professor and also as president in that institution and also as president of Union College, Schenectady, New York; and in 1804 he became the first president of the College of South Carolina. William C. Preston (1794-1860) was a graduate of the College of South Carolina, served for a time as United States Senator from that state, and was president of his alma mater from 1845 to 1851. James H. Thornwell (1812-1862) was a graduate of the College of South Carolina, held a professorship there, and served as president of the institution from 1851 to 1855. His letter to Governor Manning in 1853 on education ranks high among the most important statements on that subject produced in the South prior to 1860. The General Assembly of South Carolina ordered the publication of 5,000 copies of the letter.

LETTER II.

AUGUST 1, 1857.

In our last letter, we criticised the literary institutions of this country as they *are;* we now beg leave to describe how one of them, at least, *should be.*

I. Being convinced that the study of the Latin and Greek languages (as now taught) does not enable our students to read the classical authors with sufficient ease in the original to appreciate their literary merits, and to use them as models of taste or vehicles of information; and that considered specially as means of mental training, this study, when partially taught, does not discipline the mind in a higher degree than other studies, which besides possessing such a quality, may also impart a great deal of useful and necessary knowledge, the Greek and Latin languages form no part of our curriculum.

That which we substitute instead, is neither new nor absolute. It considers merely in extending several of the very studies pursued in all the literary institutions of this country; adding a few others, and adopting a method of instruction which exacts more from both student and professor. Through that method the whole sum of physical and mental application which can be expected from an American youth in educational pursuits shall be obtained.

The vast amount of time hitherto devoted to an imperfect acquisition of the dead languages, we tranfer to a profound study of our own language and literature; a foreign tongue, universally spoken, which can be acquired in a few years, and at the same time train the mental powers in a satisfactory degree, and a comprehensive study of history, both ancient and modern.

Mental Philosophy, Constitutional Law, Political Economy, Mathematics, Natural Philosophy, Chemistry, Geology, and Natural History, Penmanship, Drawing and Gymnastics, complete the course.

II. The Faculty, to whom are committed the government and instruction of the students, consists of six members, viz:

A Professor of Mental Philosophy, Political Economy and Constitutional Law. This chair is filled by the President.

A Professor of English Literature, Logic and Rhetoric.

A Professor of the French Language.

A Professor of History, Antiquities and Geography.

A Professor of Mathematics and Natural History.

A Professor of Chemistry and Geology.

An adjunct-Professor of Chemistry and Geology, who will teach Natural History.

An instructor in Drawing and Penmanship.

An instructor in Gymnastics, who also fills the Office of Marshal.

If the endowment allows it, assistant professors may be added to all the departments.

The qualifications of the teacher are naturally to be sought in his proficiency to teach the branch of learning entrusted to him. And to repeat here that he must be a thorough master of his department; accustomed to teach and study, for "the one exclusive sign of a thorough knowledge," says Aristotle, "is the power of teaching;" a strong friend of the institution—which is not always the case. A man who is ever above the petty selfishness and jealousy which so often prevail among members of the same Faculty; one who looks upon the profession of teacher more as the discharge of a noble, life-time and solemn duty, than a make-shift or means of temporary support, would perhaps appear trite or idle. As to the moral qualities of a teacher, they have always been a subject of earnest enquiry; and as it would be the height of presumption in us, to comment upon a topic so completely investigated by such men as Quintillian, [*sic*] Burton, Locke and Rollin, we will rest satisfied with quoting some excellent remarks from the great Roman rhetorician.[11]

"Let the master, above all things," says he, "bear towards his scholars the affection of a parent, and look upon himself as succeeding to the place of those who have delivered them over to his care. Let his discipline be without asperity, and his indulgence without cheapness; thus, he will secure their affections and avoid their contempt. Though far from being passionate, yet he is not to dissemble whatever requires amendment. Let him be plain in teaching, patient of labor, and punctual rather than precise. Let him readily answer the inquisitive, and of himself examine those who are otherwise. In commending the exercises of his pupils, he ought neither to be niggardly nor lavish, because the first begets disgust, the other negligence."

As to the duties of the teacher, there is hardly a digest of collegiate by-laws, which does not clearly define them. Those stereotyped rules constitute the whole amount of experience ever gathered on the subject of education; and they often have so often been revised, corrected and improved, that we deem the digest of any College whatever, as good a compendium as can be desired. In

[11] The reference here is to Marcus Fabius Quintilianus (36-95), generally known as Quintilian, whose *Institutio Oratoria* ranks high among all the great treatises on liberal education.

fact, the instructor's duties, from the humble old field teacher, to the dignified professor in a State University, are similar in the main, and differ only in those unimportant particulars which chiefly arise from the peculiar locality or importance of the institution. We have only to add that he is not permitted to engage in pursuits for emolument unconnected with the service of the College; and, if a clergyman, he cannot take charge permanently of any church in or out of the place where the institution is located.

III. A Trustee is generally a retired public officer, a gentleman of leisure, or an influential lawyer, who knows but little and cares still less about the management of a literary institution. His title was conferred as a mere compliment and because there must be trustees, or on account of his well-known abilities in other pursuits. Often, however, it is simply as an offset to his high-sounding name. We know of such trustees who have been figuring in College catalogues for twenty years without ever attending a single meeting.

Our trustees are men of experience and activity. We do not wish a numerous board, but a few diligent members who are required and never fail to attend all the regular examinations; thus adding, by their presence, importance to a ceremony which, in some neighboring colleges, is rapidly degenerating into a solemn mockery.

IV. There is only one session, which commences on the first Friday in September, and continues forty-five weeks, including public speaking, examinations and commencement.

The session is divided into three terms of fifteen weeks. At the end of each term all the classes are examined, by divisions, in presence of the Trustees and Faculty. In this way a frequent opportunity is offered to the students who have been successful in the prosecution of their studies, to pass into a higher station; and an annual vacation of seven weeks is secured. This is more than sufficient. In the Royal Colleges of France, where a much greater amount of study and confinement is required of the Collegians, they have only one month; but we must make a due allowance for the nature of our pupils, their habits, and the bad condition of Southern roads. An imperious necessity demands that collegiate vacations should be shortened in duration and less frequent. In themselves, vacations are certainly productive of good—the bow keeps on the stretch better for being occasionally unstrung—but when recurring often, the perturbation they occasion in the studies is too great. The very anticipation of them makes itself

felt; and it takes at least two weeks each time to settle the student's mind after his return.

V. The number of students is limited to two hundred. It can never be increased, even with the addition of professors and buildings. The pupils are divided into four classes; each one of which is sub-divided into two divisions. The first division consists of the more advanced scholars, and at the end of every term, those of the second division, who have stood a satisfactory examination, join the first division; those who have not, remain where they are, or after one more unsuccessful trial in the same division, are dismissed. This system, we are told, works well at West Point and Georgetown College, and we do not see why it should not meet with a like success in our institution. By those means the more advanced students proceed rapidly, and are not thwarted in their career by the "gentlemen of leisure," whom President Barnwwell[12] is reported to have said, we must expect to admit, and retain, and endure, and graduate, in all the colleges throughout the length and breadth of our blessed country.

The classes recite and hear the lectures by divisions. They study by sections of one-fourth of the whole class, when it numbers fifty-two, and of one-third when less than forty.

All the students have three recitations a day during five days in the week; on Saturday they recite twice, and Sunday, only once. Monday and Saturday mornings are set apart for drawing and penmanship. The hour from 12 to 1, P.M., is devoted to gymnastic exercises and fencing, which are obligatory upon all the students.

The whole number of recitations amounts to 2,756, which are thus divided among all the departments:

	English Gram., Literature, Rhetoric, Logic	Mathematics, Nat. Philosophy	Antiquities, History	Geography	French Language and Literature	Intel. Philosophy, Polit. Economy, Consti. Law	Chemistry, Geology, &c.	Drawing	Bible, Moral Science
Freshmen...	4	4	3	1	3	..	..	2	1. a Week
Sophomores.	4	4	3	1	2	..	2	2	1. " "
Juniors.....	4	4	3	1	2	..	2	2	1. " "
Seniors.....	3	4	1	1	2	7	2	2	1. " "
	559	463	386	38	347	270	231	308	154

[12] Robert W. Barnwell (1801-1822) became president of the College of South Carolina in 1885, succeeding Thomas Cooper whose theological liberalism or radicalism had greatly reduced or had threatened to reduce the prestige of that institution.

VI. *Department of English Grammar, Literature and Composition, Elocution, Logic and Rhetoric.*

It is remarkable fact that many of our statesmen and barristers, who have had the advantage of a collegiate education, write their mother-tongue with less perfection than might be expected. The style of our speakers is often forcible, their logic sometimes overpowering, and few of their stirring appeals ever fail in effect; but, if we lay aside our partiality or party-spirit, to analyse the rhetorical part of their orations, we find that the words in themselves are not of the purest choice, whilst the sentences are rarely framed with taste and simplicity. Their diction is energetic but irregular, and it frequently lacks grammatical accuracy. How many of the celebrated speeches which once stirred the souls of all hearers, either within the halls of Congress, Faneuil or Tammany, only appear to us, who are not under the spell of the orator's eloquent accents, cold, stiff, and disconnected? Too many of our periodicals are written in very indifferent English; and although allowances must be made for the provincialisms, newly coined words and cant terms, which always will creep into political arguments or newspaper controversies, it must be conceded that a better choice of words and more carefully wrought sentences might be used in all our public prints; inasmuch as the majority of editors, we believe, are alumni of our colleges.

We ascribe this defect to the little attention paid to the study of English Grammar and Rhetoric. When and where do we recite in Murray or Fowler? Only at the preparatory school. Why, in many instances, we never open an English Grammar after we have passed the age of twelve, however imperfect our knowledge may be; we even look upon it then with undisguised contempt. The little we learn in after life about the structure and character of our native language is wholly derived from a kind of involuntary imitation. "If any one among us have a facility or purity more than ordinary in his mother tongue," said Locke, at a time when Grammar was somewhat better taught than now-a-days, "it is owing to chance, or his genius, or any thing, rather than to his education or any care of his teacher."

It is true that in all our colleges the Professor of Rhetoric faithfully corrects whatever errors, both of style and grammar, which he may happen to detect in the compositions of his pupils; but we should not lose sight of the fact, that the student enters College with an exceedingly scanty knowledge of his own language; and the arrangements are such that he can write compositions only once

in three weeks; and even then he aims more at Sophomoric period than grammatical accuracy. What our pupils imperiously want, consists in a firm and broad basis; in principles well understood, never to be forgotten, and imparted through a simple method which speaks louder to the understanding than to the memory. A rule of grammer [*sic*] is generally very complex, and to understand it well requires some acumen. Indeed, we have heard sound thinkers place a rule of syntax among the most involved thoughts; and there is a great difference between inculcating principles of that sort through a mere mechanical process, to lie dormant in the memory until age and necessity unfold them to your astonished understanding, or by mental exertions proportioned to your wants and abilities, that we gladly avail ourselves of this opportunity to elevate the study of the English Grammar to a station worthy of its importance,—the sneers of pedants and the contemptuous smiles of college snobs to the contrary notwithstanding.

We constantly praise a Massinger, and a Milton, a Bollingbroke and a Burke, but are we all thoroughly acquainted with their writings? Are we even prepared to appreciate the style and genius of those master spirits of our vernacular literature? Alas!, we often do not read their works at all; and when we do so, it is only in after-life, without any guide to point out the beauties or make us feel the sublimity of their masterly compositions. It is not sufficient to peruse books, were it with the most unrelenting attention, to be at once qualified to perceive their beauties. A certain discriminating taste and respectable acquaintance with the principles of Rhetoric are necessary to judge of the merits of any literary production whatever. The power of sound criticism is not altogether innate, at least in the state required for its immediate application. It is unfolded, if not acquired, only by constant and enlighted comparisons with well selected models, judicious analysis and critical observations under the guidance of an experienced teacher. The College is the place to obtain those first principles; and we are so convinced of their importance, that neither time nor attention is spared in our institution to ground them early and deeply in the student's mind.

In this department we devote three lessons a week during the three terms of the first year, to a comprehensive study of the Grammar, and one every five days to the writing of an original composition, setting forth in prescribed manner the principles studied during the week.

In the second year, a work on Rhetoric and Criticism, (Kames')[13] together with appropriate lectures exhibiting the history, character and philosophy of language, together with a composition, absorb the four recitations allotted every week during the whole year.

In the third year, they also write compositions, and read select passages from English classical authors, which they analyse, orally in presence of the whole division. A student should be capable of reading thirty pages of Atterbury or one act of Ben Jonson in two hours. Now, 4,000 pages, well chosen from among our standard writers, and elucidated in the above manner, cannot fail, it strikes us, to initiate the student into some of the merits of English Literature.

Logic is with us a last study, absorbing two recitations a week, during the first and second terms of the Senior Class.

The third recitation in the three terms is devoted to the Professor's criticisms upon the speeches written during the week; and then two last recitations of the third term, to the history of English literature.

VII. *Department of Mathematics, Natural Philosphy and Astronomy.*

Without sharing entirely the scepticism of Sir William Hamilton, or the excessive enthusiasm of Dr. Whewell, as regards the excellence of Mathematical studies, we believe with the former that Mathematics have been greatly overrated as an invigorating exercise of the reasoning faculties, and readily grant to the latter that this science, considered in itself, or in its "subjective results," as Sir William was wont to say, must be left, at least as a co-ordinate, to find its level among the other branches of academical instruction. The principal ground upon which we introduce Mathematics into our scheme, is not, then, as many Cantabrigians cooly assert, because they are means of forming logical habits, better than logic itself. This would be preposterous in the extreme, especially at this time, when nearly everybody has perused the remarkable dissertations of Sir William Hamilton on the subject, and lent credence to the crowd of unimpeached and unimpeachable authorities, from Descartes to Newton, which he adduces to support his arguments. We appeal to better reasons, and shelter ourselves under "the ancient and universal observation, that as different studies cultivate the mind to a different development, the end of a

[13] Reference may be to Lord Henry Home Kames (1696-1782), Scottish lawyer and philosopher who wrote on many subjects and was the author of *An Introduction to the Art of Thinking* and *Elements of Criticism.*

liberal education should be the general and harmonious evolution of its faculties and capacities in their relative subordination;" and it is incontestable that the study of Mathematics, without being at all a specific, is a useful exercise of intelligence, which may unfold several of those very faculties.

This is not the place to sketch out the plan of studies in this department; we shall only say that Descriptive Geometry is taught in the second year. Too little attention is paid to it in our Colleges; yet it is a study which may sharpen the mental powers quite as well as Analytics, and is by far the most useful to any but future Astronomers. It is for the want of descriptive study and drawing that such general ignorance prevails among pretty well educated men with regard to plans and sections of buildings, machinery, works of art, &c., &c. They seem utterly incomprehensible to them, and (to use the odd language of a friend) cannot realize "how one plane can cut another and be represented all on *one* plane." And so as to improve the power of continued attention, we adopt the suggestion of Dugald Stewart,[14] viz: "to accustom the student to pursue long trains of demonstration, without availing himself of the aid of sensible diagrams, "the thoughts being directed solely to those ideal delineations which the powers of conception and memory enable us to form"[15]

VIII. *Department of History, Antiquities and Geography.*

When Priestly [*sic*] was only a poor and unknown tutor, in a poor and unknown Academy at Warrington, he wrote an essay on a course of liberal education for civil and active life, which might still be read with advantage. In that remarkable paper he earnestly inveighs against the course of education then pursued in England, and points out faults which neither his just remarks, nor the experience of nearly a century, has succeeded in alleviating in the least. After showing that the difficulty is how to fill up with benefit those years which immediately precede a young man's engaging in the higher spheres of active life in which he is destined to move, what does he recommend "as the new article of Academical instruction, having a nearer and more evident connection with the business of active life, and which may therefore bid fair to engage the attention and rouse the thinking powers of young men of active genius"? History, civil history!

[14] Dougald Stewart (1753-1828), Scottish Philosopher, who was educated at Edinburgh and served as professor of philosophy in that institution.

[15] Pestalozzi* used this method with perfect success; and the superiority of the graduates of the Polytechnic School at Paris, is partially ascribed to this system of studying mathematics. [Author's note]

* Johann Heinrich Pestalozzi (1746-1827), famous Swiss educational reformer whose influence was very extensive in the United States.

And so it should be. History tends to invigorate the sentiment of virtue, and enables us to form just ideas both of the strength and weakness of human nature. It is a pleasing and interesting study which serves to amuse the imagination and interest the passions; it improves the understanding, evinces facts essential to all knowledge, frees the mind from many prejudices, and, in fine, fits men for the business of life. These reasons are Priestley's, and spring from common sense.

Now, peruse the catalogue of any American College, and see how limited is the place which that important study holds in the curriculum. In many Colleges it is tacked on to some other department somewhat like a fifth-wheel in a wagon.

As to the study of Geography, without thinking with Vossius[16] and Locke that maps ought to be entrusted to boys so early as the age of six, we are so convinced that engravings, globes, &c., greatly exercise the eyes and memory, and accelerate the improvement of the scholar, in presenting new ideas clearly to his apprehension, that not only all our halls and recitation-rooms are furnished with such implements, but during the second year, half of the drawing lessons are devoted to geographical sketches and maps. The students are also often required to draw on the black-board, whilst the recitation is going on, plans of cities, the march of armies, &c., so as to blend, as much as possible, Geography with History.

During the senior year, the students write original historical dissertations.

IX. *Department of the French Language and Literature.*

It is often urged that the chief excellence of the dead languages consists in training the mind to a higher degree than any other study. Why? Is it in consequence of the peculiar nature of the Greek and Latin idioms and syntax, or because the study of any language whatever calls forth the strongest and most unexclusive energy of thought? The first of those reasons is certainly plausible, although we did not often find in either of those two languages any grammatical difficulties more difficult to understand than the French participles, but we are not aware of its having ever been urged except in the easy form of a mere assertion. Stephanus, Murat, and the philologers of old who so earnestly advocated, and did so much for the study of the Greek and Latin, certainly did not aim at proving their educational virtues, which is a consideration altogether of modern growth. It was the richness, the force, the

[16] Gerhard Johann Vossius (1577-1649), German classical scholar and theologian.

euphony, the literature, which they justly and exclusively praised. As for the second reason, it is founded on truth. The grammatical intricacies of all languages, considered in their philological *ensemble,* are nearly all akin; and to overcome them requires the aid of the same faculties. Every argument which can be adduced on that score, in favor of the Greek and Latin languages, will apply with equal force to any modern language whatever—with this difference, that a spoken tongue is always better understood and taught than a dead one. As we need that peculiar training which the study of a language alone can give, it remains to make a choice.

If we look only for barren difficulties the Chinese, with an endless variety in its collocation of unchangeable roots, must be preferred to the German, and the German to the French. But common sense tells us that the difficulties we seek are not of this kind; and the first claim which a language should have on our choice, lies in its utility, perfection, and literature. The Spanish or German, then, might be taught with advantage. The former, on account of its copiousness and the affinities which it bears to our own language; the latter, in consequence of its importance to Southern students and the richness of its idiom, which could not fail ultimately, if generally taught and spoken, to work a desirable change in the euphony of the English tongue. But as we do not wish our students to possess only a smattering, but a thorough acquaintance with *one* foreign language, we will not follow the example of the New York University, for instance, where they are taught, *nolens volens,* French in the Freshman class, German in the Sophomore, and Italian and Spanish. Let any one who ever attempted to study a modern tongue at College state how much he has learnt in one, in two, in three years! No, only one of those languages is taught in our institutions, but we expect the students to be able, by the time they are graduated, to read, write and perhaps speak it, with ease and accuracy.

As the choice of this one language is vested in us, we select the French.

Locke remarks that the pupil should learn some other language than his own, "this nobody doubts of," says he, "when French is proposed." The reasons are obvious, if we believe Vicesimus Knox.[17]

"The French language abounds with authors elegant, lively, learned and classical. A scholar cannot in this age dispense with

[17] Vicesimus Knox (1752-1821), English divine, popular and voluminous writer on miscellaneous subjects.

it. To be ignorant of it, is to cut off a copious source of amusement and information. I need not expatiate on its utility to the man of business, and the ornament it adds to the accomplished gentlemen. Its use and its grace are sufficiently understood."

X. *Department of Constitutional Law, Political Economy and Mental Philosophy.*

It has been hinted that self-government is a kind of intuitive knowledge with us. This we do not doubt, but nevertheless deem it necessary to our young men to study carefully, under the supervision of a very able and impartial instructor, both the laws of the State and the United States Constitution.

"In a country where free institutions prevail, and where public opinion is of consequence," says Sir John Herschel, in his well-known letter to Dr. Adamson, "every man is to a certain extent, a legislator; and for this, his education, (especially when the government of the country lends its aid and sanction to it) ought, at least, so far to prepare him, as to place him on his guard against those obvious and popular fallacies which lie across the threshold of this, as well as of every other subject with which human reason has anything to do Every man is called upon to obey the laws, and therefore it cannot be deemed superfluous that some portion of every man's education should consist in informing him what they are."

As to Intellectual Philosophy, it is in this department that we expect the greatest efforts on the part both of the student and his instructor. Lectures and elucidations derived from practical illustrations, free from cant, and if possible, technical phraseology; a constant watch over the audience to detect what is understood and what is not so; questions plainly stated, (with some instructors it is more difficult to comprehend the question than give the answer); repeated generalization in new language every time, &c., must often be resorted to, if the Professor has truly in view the mental improvement of his pupil. For Philosophy, "the thinking of thought, the recoil of mind upon itself, is the most improving of mental exercises, conducing above all others to evolve the highest and rarest of the intellectual powers."

The utility and invigorating qualities of *Chemical and Geological studies* are too obvious to require any vindication whatever. As to Drawing and Penmanship, if the number of recitations in that department appears rather large, we must bear in mind that it is taken from days hitherto devoted to idleness or pleasure. Draw-

ing may be easily rendered a great relaxation of the mind and a source of enjoyment to the student.

Gymnastics.—It cannot be well denied that the generality of our students do not present that healthy appearance which is so often to be found among the inmates of the Gymnasia of Wurtemberg, or the high schools of England. We ascribe this physical defect to the quantity and quality of the food which they eat three times a day, without the use of tonics of any kind, their immoderate use of tobacco and total want of exercise. No one can reasonably expect to reform all those evils at once. Meat, American students must have, often and plentifully; tobacco they will chew and smoke, but exercise can be easily enforced on them.

We rarely see them ride, fence, row or take long walks. Many are fond of hunting, but few indulge in the sport. In fact the greatest part of their leisure time they spend in loitering from room to room, or lolling on their beds to puff bad cigars and doze over trashy novels. Yet, who can deny the absolute necessity of bodily exercises? The ancients, who had better views in many respects than the moderns in the art of training young men, made of gymnastics one of the four requisites of their education. The Greeks and the Romans were thoroughly convinced that the mind could not be sound, unless the body was likewise in a healthy state. Hence, it is that we never clear away the rubbish of any Hellenic city, without discovering the ruins of several palestrae. If gymnastics were considered as so conducive to the health of men who passed nearly their whole existence in the public squares, how necessary must we deem bodily exercise when thinking of youths who are unavoidably subjected during many hours to a severe confinement? We therefore earnestly urge the introduction in all schools, academies and colleges, of jumping, wrestling, boxing, running, &c., in fine, of compulsory exercise of any kind. This they must have, were it only like Petavius, at the end of every hour, a twirling of their chairs for five minutes! We have a gymnasium in the open air, in the practice of which all the students are required to partake, during one hour every day, under the supervision of a competent instructor.

XI. It is the collegian's nature to be prone to idleness, to consider study as a severe infliction, and the college discipline as a tyranny which he constantly and ingeniously strives to elude. Even those who are urged to application by the laudable ambition of acquiring knowledge or college honors, often look upon the day's recitation as a task which they endeavor to alleviate. Hence their

frequent use of translations, readiness to avail themselves of the professor's occasional mistakes in giving out the lesson, and those little associations where the preparation of the recitation is carried out in concert, each member contributing his share of researches to the common mass, or rather the best scholar in the company translating the text aloud for the accommodation of his artful classmates. This natural tendency to self-indulgence is greatly abetted by the exclusive liberty granted to our students. Provided they are in their rooms at a stated time, nothing more seems to be required of them. They may occupy the study hours in reading newspapers or anything else, dozing in a rocking chair, or whittling soft pine sticks, no one will or can compel them to study. If they do not know their lesson, they get a bad mark, and in the opinion of the faculty stand low in the scale of scholarship—a very unenviable estimation, no doubt, but which has but little influence upon their ulterior conduct. They are too well aware that a student is hardly ever dismissed from college on account of deficiency, or refused to be reinstated after an easy trial, when perchance he has been "disapproved." In some institutions it may even be said that the greatest danger he runs of losing his diploma is to be short of the money required to pay the college fees.

Such unlimited freedom of action is altogether out of place within the walls of a college. Both the curriculum and study must be compulsory and rigidly attended to; no door should be left open to shifting or evasions of any kind. Close application, prolonged mental efforts, should be enforced on all the students, whatever be their age, wealth, intellectual superiority or family connections. Is there anything more unjustifiable, more revolting, than to see a student placed above the rules of college, disgracing himself and setting at defiance both teachers and citizens, because he is the son of an influential man?

The spirit of competition, or the hope of reward, stimulates only a few, necessity works upon all. Young men naturally shrink from protracted and active thinking, but we firmly believe with Sir William Hamilton, that mental exertions, however difficult and irksome when first enforced on the student, after a while become easy and agreeable. "This effort," says that great metaphysician, "is at first and for a time painful, positively painful, as it abstracts from all other and pleasurable activities. It is painful because its energy is imperfect, difficult, forced. But as the effort is gradually perfected, gradually facilitated, it becomes gradually pleasing; and when finally perfected, that is when the power is fully developed,

and the effort changed into a spontaniety, becomes an exertion absolutely easy, it remains purely, intensely and alone insatiably pleasureable." [*sic*].

Every class, then, except the Senior class, is divided into four equal sections. Each one of these sections studies apart—thus forming little agglomerations of twelve students, more or less, who study in common, in a room separate from the rest, and under the responsible supervision of a senior, who prepares at the same time his own lessons. This monitor, who is taken from among the most respected and orderly in his class, is exempted from paying the college fees; and, if necessary, is sworn to a faithful discharge of his monitorial duties. Like the sergeants at the Polytechnic School of Paris, or the *Obergeselle* at the gymnasium of Pforta, he is responsible for whatever disorder occurs in the class-room; he reports the students who appear to muse, talk or remain idle, and aids his companions in the preparation of their lessons, either in answering questions or repeating occasionally, the Professor's recommendations.

Each member of the faculty visits in turn all the classrooms during study hours. Two hours are alloted for the preparation of each lesson, the first of which is studied in the dormitories at night; the second and third in the class-rooms, in the manner above stated. The seniors, except the twelve monitors, study their lessons in private, but recite in the same manner as the other classes. The balance of the time is altogether at the student's disposal.

Before dismissing the subject of instruction, we beg leave to expatiate upon an evil which strikes at the root of the real prosperity of our colleges. It is the extreme facility with which a student is so often permitted to pass from one class to another without possessing even the amount of knowledge strictly necessary to understand the studies of his own class. In our American colleges we frequently see students who scarcely ever study during the session. They get one of their classmates to read over the lesson to them whenever there is a probability of being "called up." If they fear that on account of their constantly bad recitations they run the risk of being brought before the faculty—which rarely proves of any avail —or "disapproved," which is seldom the case, they devote themselves during a day or more, perhaps, to an earnest but unwholesome study of their text-books—thus cramming into their heads as much of that indigestible knowledge as it can hold, and through great abundance of literal translations, and a forcible

stretch of memory, they at last save themselves from a mere threat of rustication[18] or dismissal.

We use the words "mere threat," because it has become of late a prevailing opinion in some institutions that a great number of students is the only evidence of the prosperity of a college; thus forgetting "that the *intrinsic excellence* of a school is not to be confounded with its *external prosperity,* estimated by the multitude of those who flock to it for education." To be better able to issue yearly a crowded catalogue, they leniently admit candidates who are deficient in some studies, under the pretence that they may afterwards "make up," as if the college course and every day's task were not already difficult and absorbing enough to engross all their time,– and often slide over offences which would be punished severely, if thereby their singular scale of collegiate prosperity were not to show a decrease by the omission of a few names. Now, when we consider how many ignorant students do graduate, and how few are turned out of college as deficient in scholarship—though deserving it—we say that there is not perhaps a single evil in the whole catalogue of college nuisances which so loudly calls for censure and immediate extirpation.

The attention of European professors has long been awakened on the subject, for it is a mischief which at one time had full sway in many of their institutions; but by energetic measures they at last succeeded in palliating its pernicious consequences. "In Prussia," said Mr. Cousin, in one of his letters to the French Minister, "a salutary severity presides over the admission of the student into another division. With us the imperial regulations also prescribe two examinations in the year, but these, as well as many others, are not enforced, (1831); so much so, that the higher classes are sometimes filled with students who are not able to follow the course therein pursued. Outwardly, it does very well; the classes are numerous, the receipts large, and the college has the appearance of being in a prosperous condition; but in facts there are only a dozen students who profit by the instruction. On the contrary, enforce the regulations, and by strict examinations close the entrance to the higher classes to the students who are not able to profit by them, it will subject to constant studies those who wish to be admitted, and cast out of college, after a few trials, those who will have been found to be unfit for literary and scientific studies. There will be a smaller number of students in the higher classes,

[18] Rustication was an old form of collegiate discipline or punishment under which some students delinquent in their academic duties were required to leave the campus and go to the country, sometimes perhaps with a tutor, to catch up with their work.

but those will be able to follow their professors' lessons; their knowledge will faithfully represent the degree of proficiency which they have attained, and both the parents and community will know what to think of it."

XII. Experience has shown that it is impossible for a college of any importance to establish a steward's hall which can give permanent satisfaction to the students. Most of the rebellions that formerly occurred in our literary institutions arose from the scantiness or inferior quality—whether true or imaginary—of the fare served up at the college tables. Even in Europe, where the students are certainly not prone to sedition, when we hear of a college rebellion, we may take it for granted that it originated in the bad quality of the food, which, indeed, is often intolerable.[19]

At Harvard, from their first establishment in the year 1636, until 1849, when they were abolished, commons have been an incessant source of disturbance. The Trustees, worried by continual and just complaints, erected some years since, a new hall, and greatly improved both the fare and accommodations. Six months had not yet elapsed under the arrangement, "before," says President Josiah Quincy, "an open revolt of the students took place on account of the provisions, which it took more than one month to quell." Not long ago, in our own college, within the precincts of which a steward's hall had been lately built, at great expense, and when the fare was clean and plentiful, the dissatisfaction soon became so great that it manifested itself by an open sedition. After dismissing quite a number of students, the Trustees were at last obliged to render commons optional, and license private boarding houses.

If we could, as at Cambridge or Oxford, where the tables are constantly supplied with such an abundance of wholesome and well-prepared victuals, flanked by decanters of Beer, Port and Sherry, that no Cantabrigian, from the supercilious Fellow-commoner to the modest and diligent Sizar, who dines gratis on the remains of his table, is ever heard to utter a complaint, we would recommend, perhaps, the introduction of commons. The experiment of satisfying all parties has been repeatedly tried, and the more so because at one time it was thought indispensable to the welfare of the institution that students should take their meals in the same room and under the supervision of their professors. At

[19] "A college president oftens stands or falls in his handling of two problems—chapel and food." President James L. McConaughy, Wesleyan University, 1938. Quoted in Edgar W. Knight, *What College Presidents Say*. Chapel Hill: The University of North Carolina Press, 1940. P. 150.

Yale, whilst the overseers earnestly endeavored to conciliate them in their efforts towards improving commons, "the conviction was increasing that they were no essential part of college," to use President Woolsey's own words, "that on the score of economy they could claim no advantage; that they degraded the manners of students and fomented disorder. The experiment of suppressing them has hitherto been a successful one, and with them have departed the discords, dissatisfactions, and open revolts of which they were so often the cause."

So as to avoid all such difficulties, and believing that it is not necessary to restrict the student's liberty in such a paltry matter as eating, whether in private or in common, nay, that the stir and bustle generally exhibted at the table is beneficial to their digestion and comfort, we allow our pupils to take their meals at private boarding houses, provided the house is licensed by the Faculty.

XIII. The salaries of the members of the Faculty are quite liberal, for we require of our instructors accomplishments and talents not to be found in the generality of college professors. It is a misconceived economy, and near-sighted policy, to curtail the teacher's compensation. It tends to render him anxious to leave the college as soon as he can obtain a more profitable situation elsewhere, and thereby hinders him from bringing into the discharge of his duty the predilection, the enthusiasm, so necessary to the prosperity of any literary institution.

XIV. We are unable to find a single plausible reason in favor of denominational colleges; on the other hand, we deem it obvious that any institution purporting the education of Christian youths, should be free, altogether free, from sectarian influence. Religion must be imparted to collegians; not, indeed, to promote the interest or progress of any particular creed, but to supply the most imperious of human wants, purify and direct all the aspirations and passions of man, and fit him for the discharge of those solemn duties which he owes to himself, to God, and the commonwealth. Let the Bible, then, be taught and expounded impartially within the walls of our college; let its truths and sublime precepts in all their lofty simplicity be inculcated on the youthful mind of our pupils; let them even exult in hymns of praise and gratitude for the precious gifts which the Supreme Ruler has so bountifully bestowed on them; but let us beware of dogmatic teachings, lest we should entail a continuance of religious intolerance, and weaken the cause of Protestantism in perpetuating the strife of sects.

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